FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/LTE PHONE WITH BT + DTS WLAN b/g/n & NFC

MODEL NUMBER: LGK371, K371, LG-K371

FCC ID: ZNFK371

REPORT NUMBER: 16I22670-E4V3

ISSUE DATE: 2/24/2016

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2/16/2016	Initial issue	D. CORONIA
V2	2/22/2016	Updated Section 9.4.3	D. CORONIA
V3	2/24/2016	Updated Section 10	D. CORONIA

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION:	GSM/WCDMA/LTE PHONE WITH BT + DTS WLAN b/g/n & NFC
MODEL:	LGK371, K371, LG-K371
SERIAL NUMBER:	512CYFT000387, 512CJZ000388, 510CYPY001168, 510CYHE001169, 510CYCV001171, 510CYYQ001170
DATE TESTED:	NOVEMBER 25, 2015 **-** JANUARY 26, 2016

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revision section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released
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Tested By:

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☐ Chamber A	☐ Chamber D
☒ Chamber B	☐ Chamber E
☐ Chamber C	☐ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 9KHz to 30 MHz	2.14 dB
Radiated Disturbance, 30 to 1000 MHz	4.98 dB
Radiated Disturbance,1000 to 6000 MHz	3.86 dB
Radiated Disturbance,6000 to 18000 MHz	4.23 dB
Radiated Disturbance,18000 to 26000 MHz	5.30 dB
Radiated Disturbance,26000 to 40000 MHz	5.23 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/CDMA/LTE PHONE WITH BT & DTS WLAN b/g/n & NFC

5.1. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2462	802.11b	15.8	38.02
2412 - 2462	802.11g	12.8	19.05
2412 - 2462	802.11n HT20	10.6	11.48

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a SUS antenna, with a maximum gain of 0.39 dBi.

5.3. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit on the channel with higher output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0

5.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	LG	MCS-02WRE	N/A	N/A
Earphone	LG	N/A	N/A	N/A

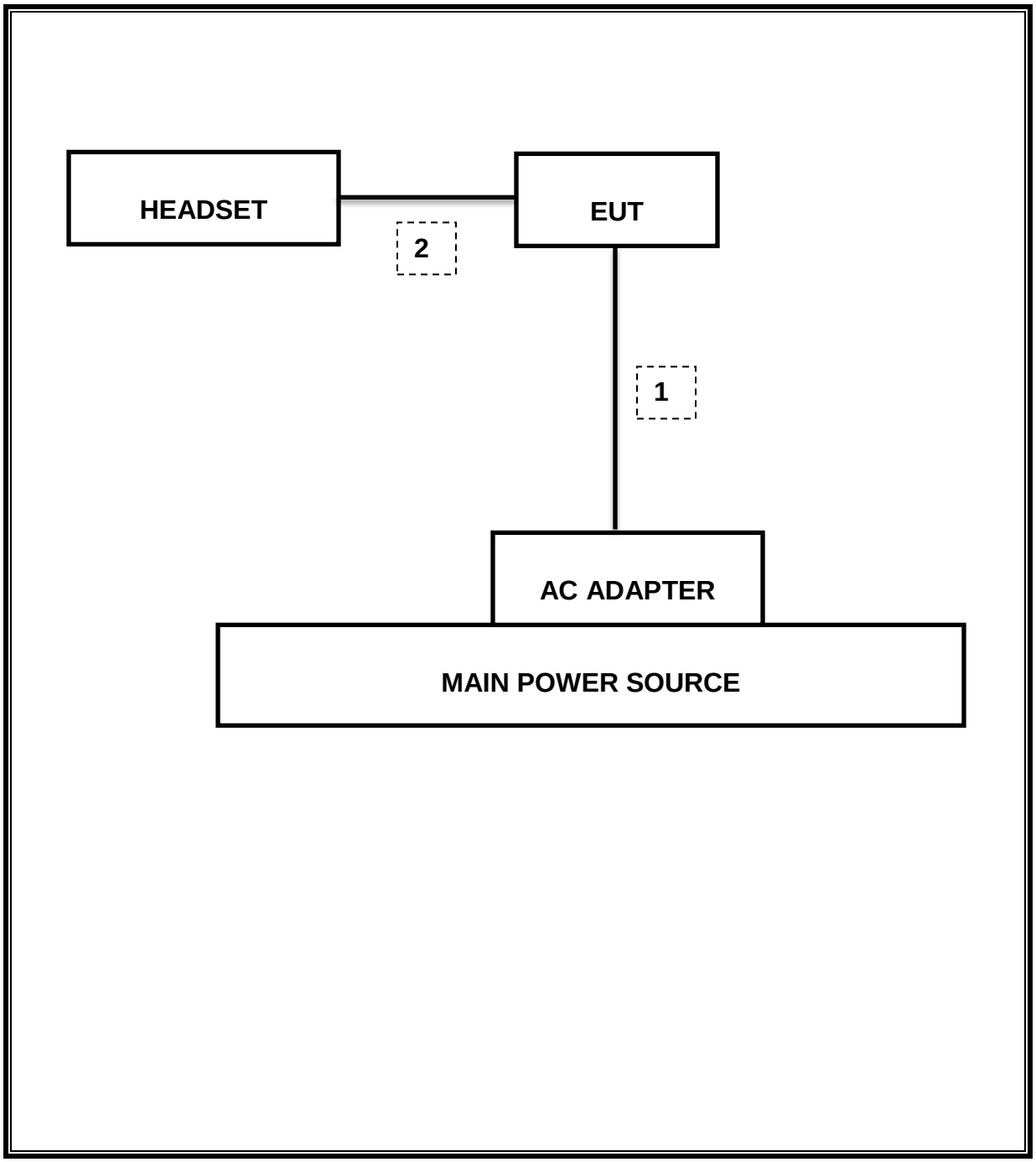
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

TEST SETUP

The EUT is a stand-alone unit during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	**Manufacturer**	**Model**	**T Number**	**Cal Due**
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	130	09/01/16
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	477	06/10/16
Antenna, Horn, 18GHz	EMCO	3115	59	11/18/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	345	03/03/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	136	03/03/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	863	04/10/16
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	447	05/12/16
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	88	04/07/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	404	06/29/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	123	10/22/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	906	03/03/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	907	06/11/16
EMI Test Receiver, 9 KHz to 7 GHz	Rohde & Schwarz	ECSI7	284	09/10/16
Peak Power Meter	Agilent / HP	N1914A	254	06/08/16
Peak / Average Power Sensor	Keysight	E9327A	117	03/09/16
LISN, 30 MHz	Solar	8012-50-R-24-BNC	28	7/28/2016
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	160	CNR
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	417	05/04/16
High Pass Filter 6GHz	Micro-Tronics	HPS17542	893	04/25/16
High Pass Filter 3GHz	Micro-Tronics	HPS17543	898	04/25/16

Test Software List			
Description	**Manufacturer**	**Model**	**Version**
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015
Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015
CLT Software	UL	UL RF	Ver 1.0, Feb 2, 2015
Antenna Port Software	UL	UL RF	Ver 3.7, Nov 12, 2015

7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 558074 D01 v03r04, Section 6.0.

6 dB BW: KDB 558074 D01 v03r04, Section 8.1.

99% BW: ANSI C63.10-2013, Section 6.9.3.

Output Power: KDB 558074 D01 v03r04, Section 9.2.3.2.

Power Spectral Density: KDB 558074 D01 v03r04, Section 10.5

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r04, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r04, Section 12.1.

AC Power Line Conducted Emissions: ANSI C63.10-2013 Section 6.2.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result
15.247 (a)(2)	RSS-247 5.2.1	Occupied Band width (6dB)	>500KHz	Conducted	Pass
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass
15.247	RSS-247 5.4.4	TX conducted output power	<30dBm		Pass
15.247	RSS-247 5.2.2	PSD	<8dBm		Pass
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass
15.205, 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB558074 Zero-Span Spectrum Analyzer Method.

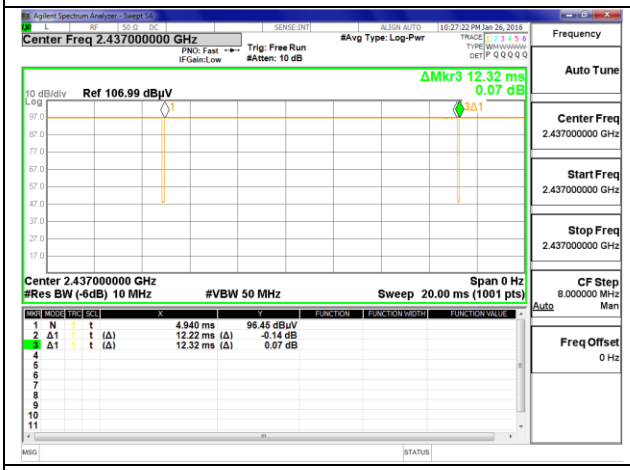
9.1.1. ON TIME AND DUTY CYCLE RESULTS

ON TIME AND DUTY CYCLE RESULTS

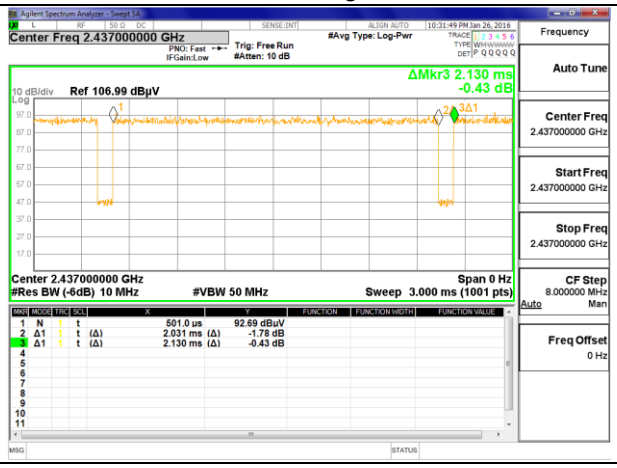
	B (msec)	(msec)	x (linear)	Cycle (%)	Correction Factor (dB)	Minimum VBW (kHz)
802.11b	12.22	12.32	0.992	99.2%	0.00	0.010
802.11g	2.03	2.13	0.954	95.4%	0.21	0.492
802.11n	1.88	1.98	0.948	94.8%	0.23	0.533

DUTY CYCLE PLOTS

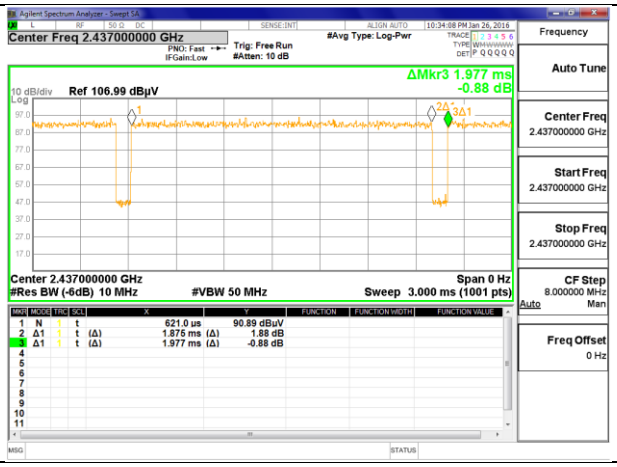
802.11b



802.11g



802.11n



9.2. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r04: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

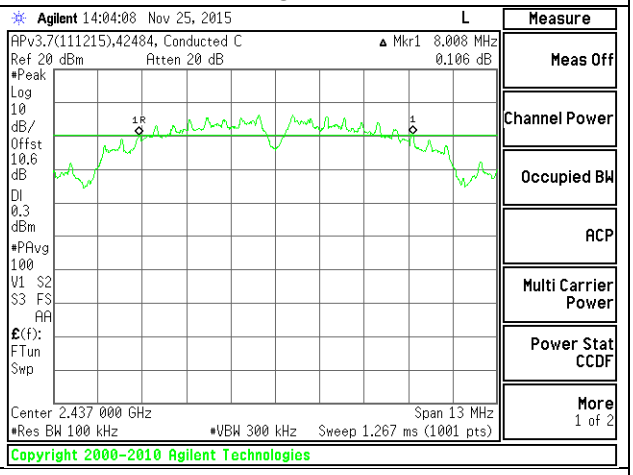
RESULTS

9.2.1. 6 dB BANDWIDTH MID CH PLOTS AND TABLE

802.11b TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
Low	2412	7.572
Middle	2437	8.008
High	2462	7.536

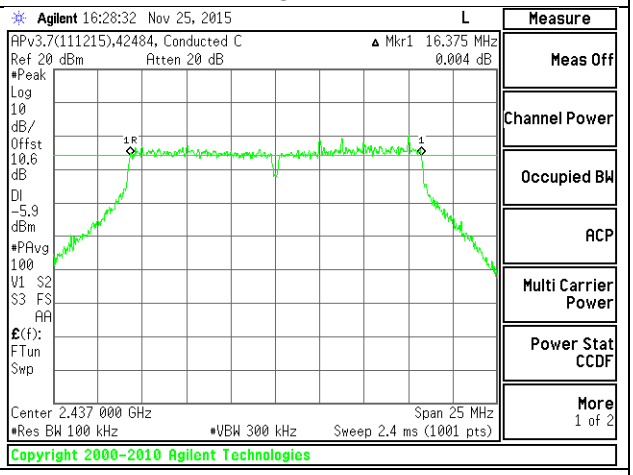
MID CHANNEL



802.11g TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
Low	2412	16.400
Middle	2437	16.375
High	2462	16.350

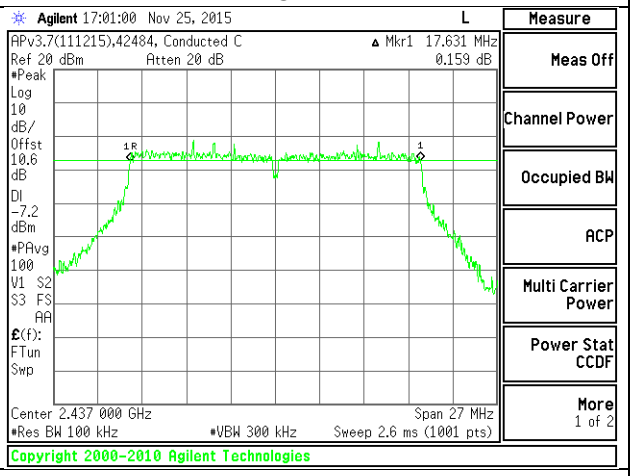
MID CHANNEL



802.11n HT20 TEST RESULT TABLE

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
Low	2412	17.290
Middle	2437	17.631
High	2462	17.316

MID CHANNEL



NOTE: --

9.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

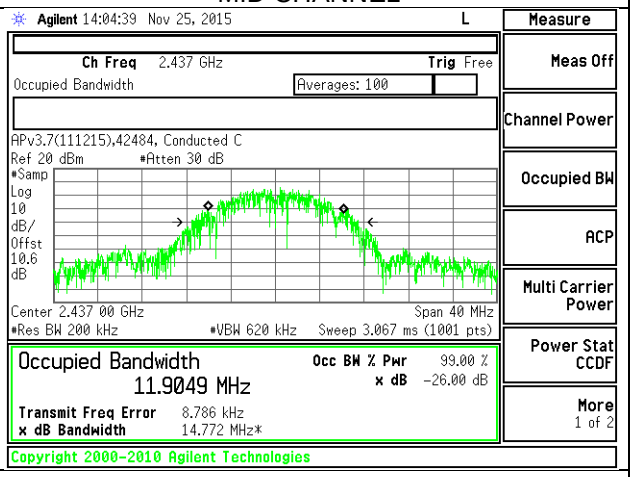
RESULTS

9.3.1. 99% BANDWIDTH MID CH PLOTS AND TABLE

802.11b TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	12.155
Middle	2437	11.905
High	2462	12.027

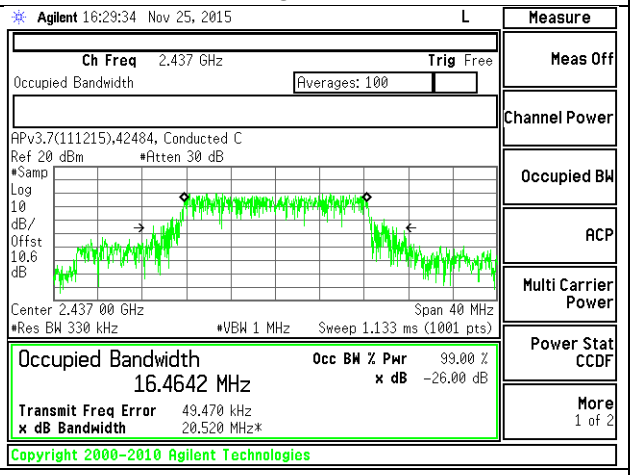
MID CHANNEL



802.11g TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.391
Middle	2437	16.464
High	2462	16.293

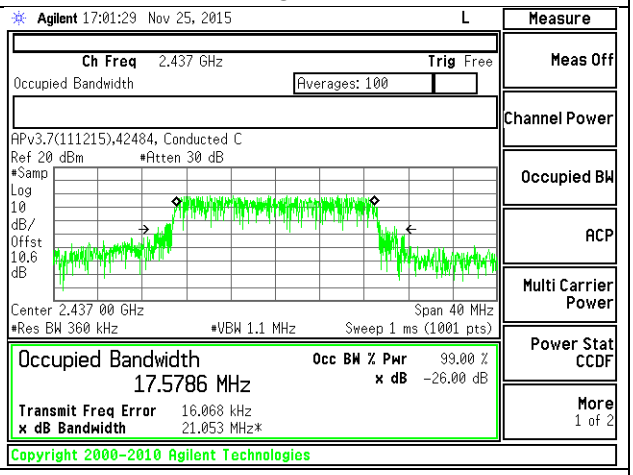
MID CHANNEL



802.11n HT20 TEST RESULT TABLE

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.665
Middle	2437	17.579
High	2462	17.452

MID CHANNEL



NOTE: --

9.4. OUTPUT POWER

LIMITS

FCC §15.247

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

9.4.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.39	30.00	30	36	30.00
Mid	2437	0.39	30.00	30	36	30.00
High	2462	0.39	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	15.10	15.10	30.00	-14.90
Mid	2437	14.90	14.90	30.00	-15.10
High	2462	15.80	15.80	30.00	-14.20

Note: the power readings above are measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

9.4.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.39	30.00	30	36	30.00
Mid	2437	0.39	30.00	30	36	30.00
High	2462	0.39	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	11.4	11.40	30.00	-18.60
Mid	2437	12.6	12.60	30.00	-17.40
High	2462	12.3	12.30	30.00	-17.70

Note: the power readings above are measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

9.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.39	30.00	30	36	30.00
Mid	2437	0.39	30.00	30	36	30.00
High	2462	0.39	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	10.50	10.50	30.00	-19.50
Mid	2437	10.00	10.00	30.00	-20.00
High	2462	10.60	10.60	30.00	-19.40

Note: the power readings above are measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

9.5. PSD

LIMITS

FCC §15.247

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

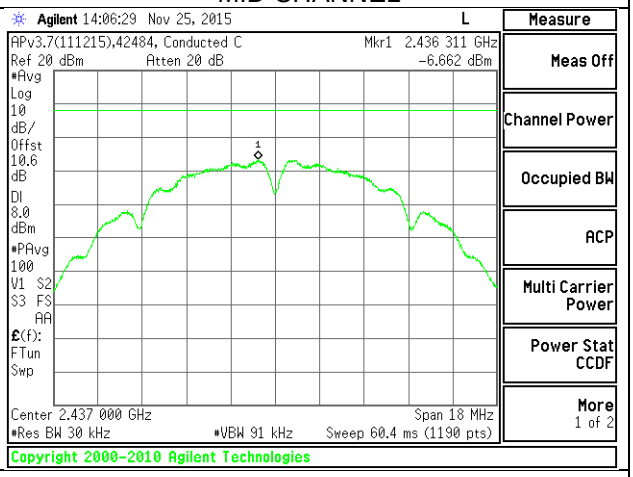
RESULTS

9.5.1. POWER SPECTRAQL DENSITY PLOTS AND TABLE

802.11b TEST RESULT TABLE

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.451	8	-15.451
Middle	2437	-6.662	8	-14.662
High	2462	-6.392	8	-14.392

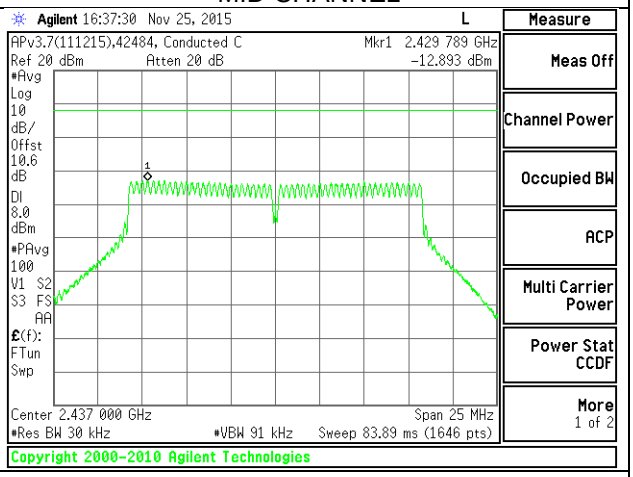
MID CHANNEL



802.11g TEST RESULT TABLE

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-12.286	8	-20.286
Middle	2437	-12.893	8	-20.893
High	2462	-11.861	8	-19.861

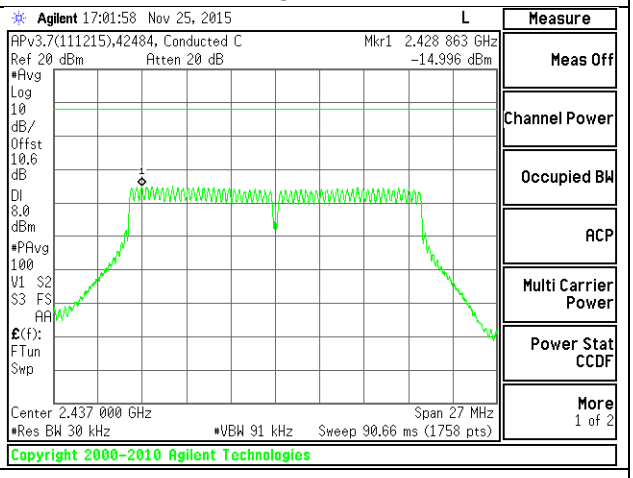
MID CHANNEL



802.11n HT20 TEST RESULT TABLE

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-14.651	8	-22.651
Middle	2437	-14.996	8	-22.996
High	2462	-14.162	8	-22.162

MID CHANNEL



NOTE: --

9.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

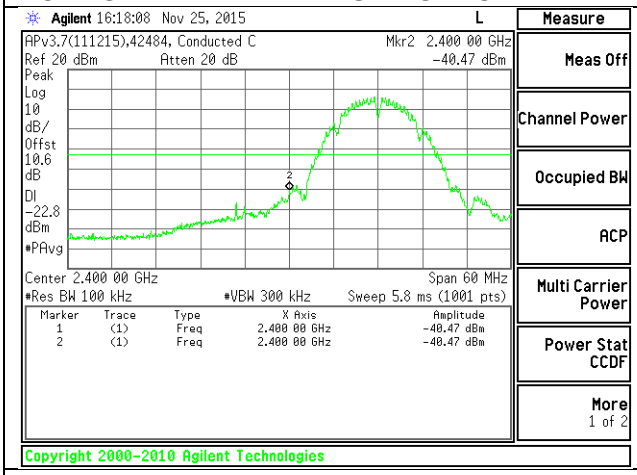
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

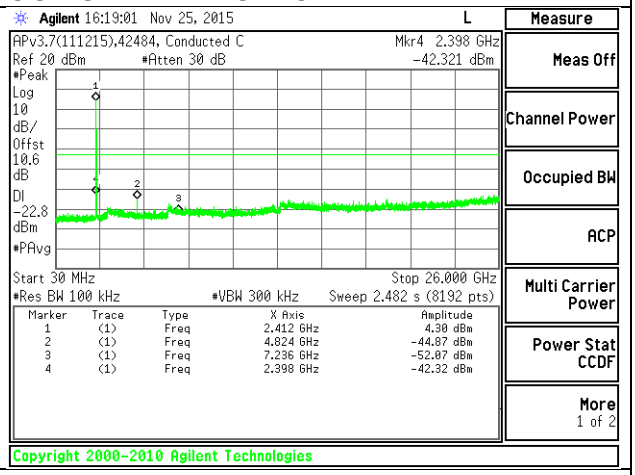
RESULTS

9.6.1. 802.11b MODE IN THE 2.4 GHz BAND

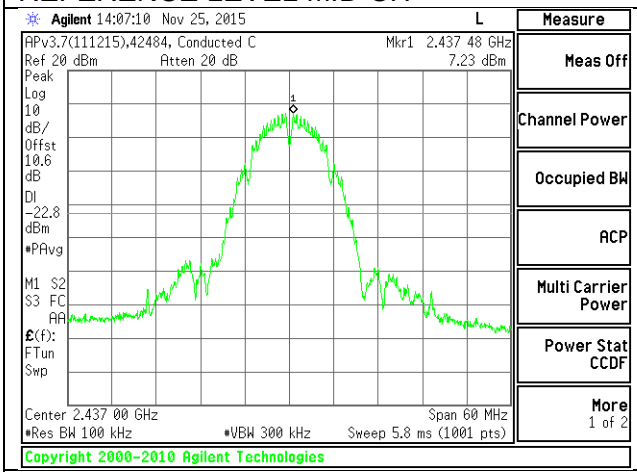
AUTHORIZED BAND EDGE LOW CH



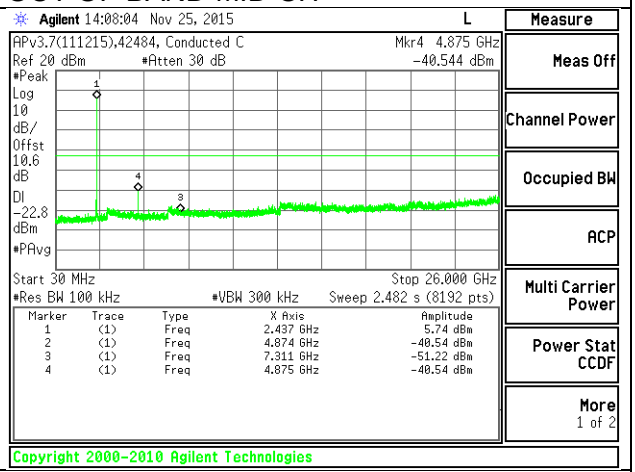
OUT OF BAND LOW CH



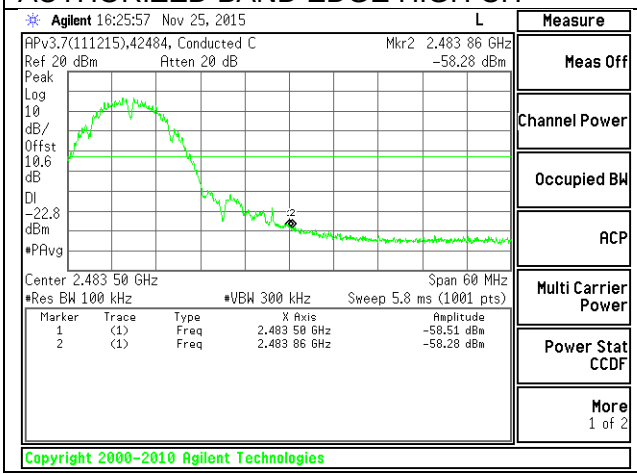
REFERENCE LEVEL MID CH



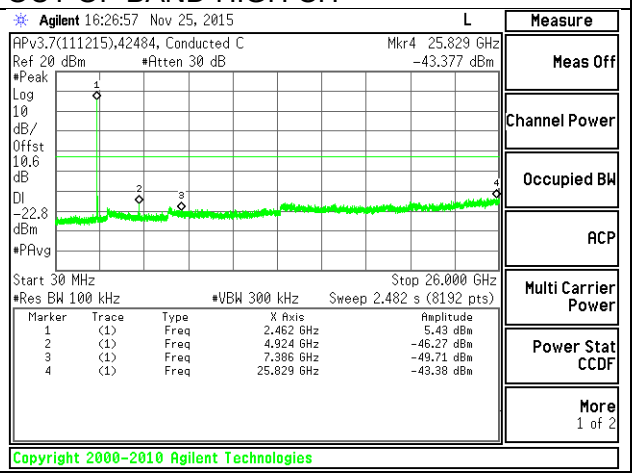
OUT OF BAND MID CH



AUTHORIZED BAND EDGE HIGH CH

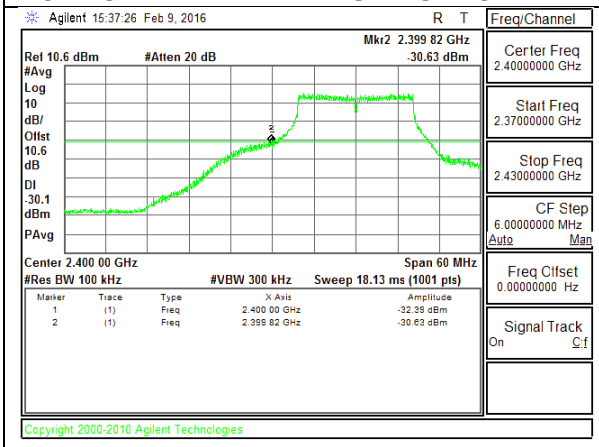


OUT OF BAND HIGH CH

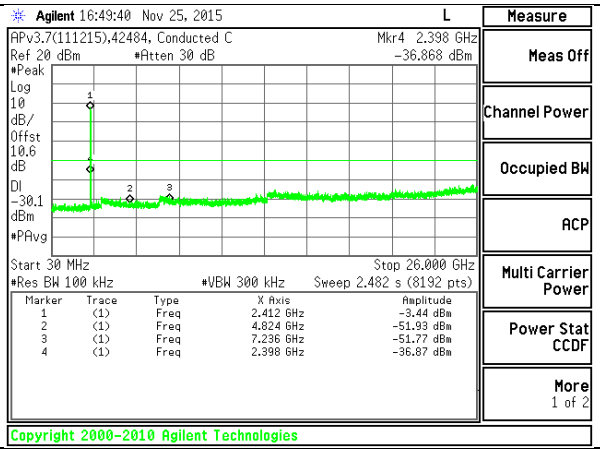


9.6.2. 802.11g MODE IN THE 2.4 GHz BAND

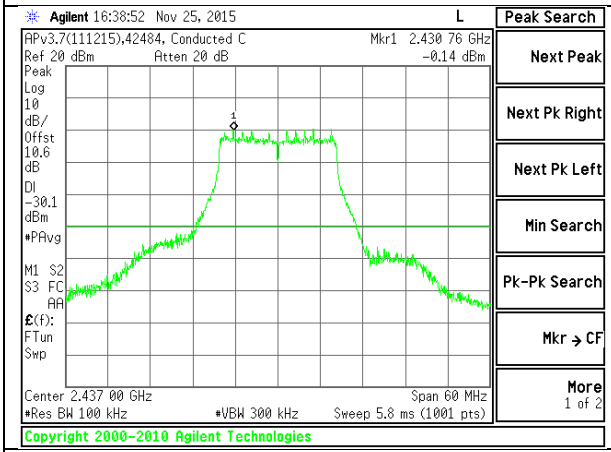
AUTHORIZED BAND EDGE LOW CH



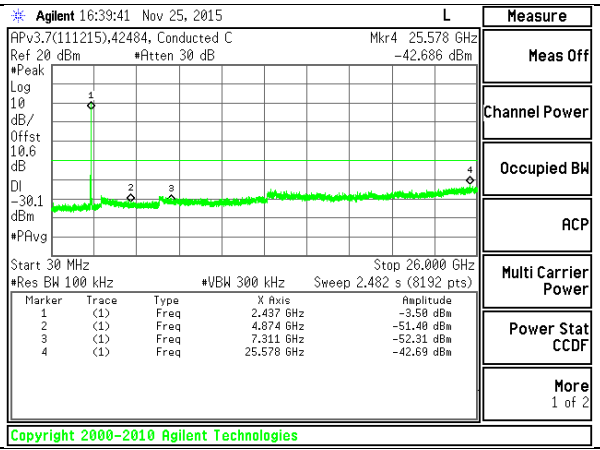
OUT OF BAND LOW CH



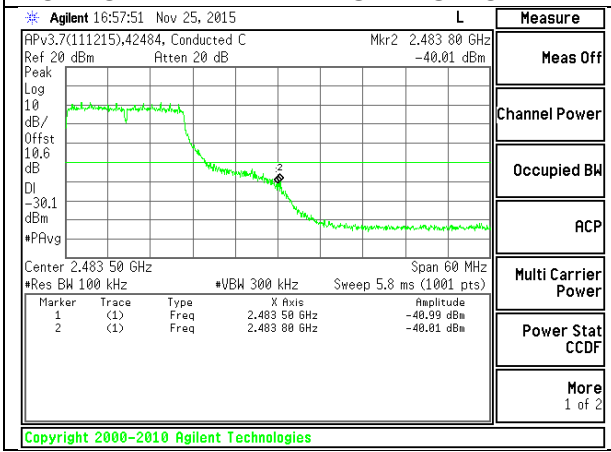
REFERENCE LEVEL MID CH



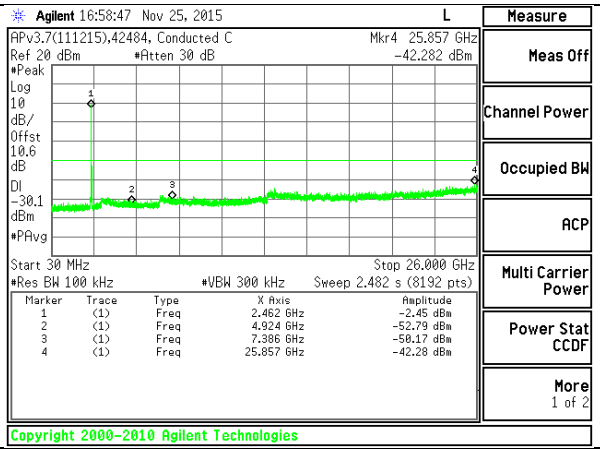
OUT OF BAND MID CH



AUTHORIZED BAND EDGE HIGH CH

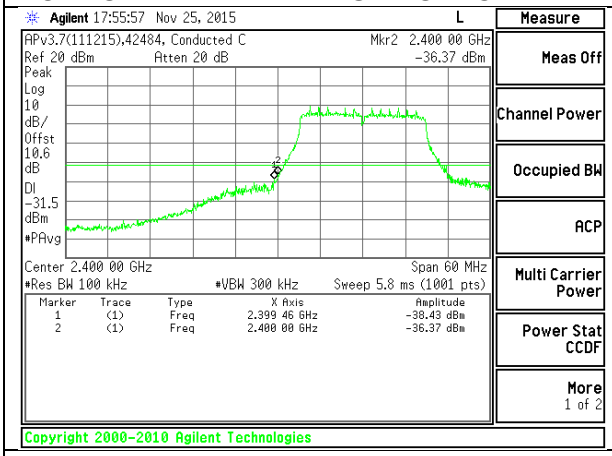


OUT OF BAND HIGH CH

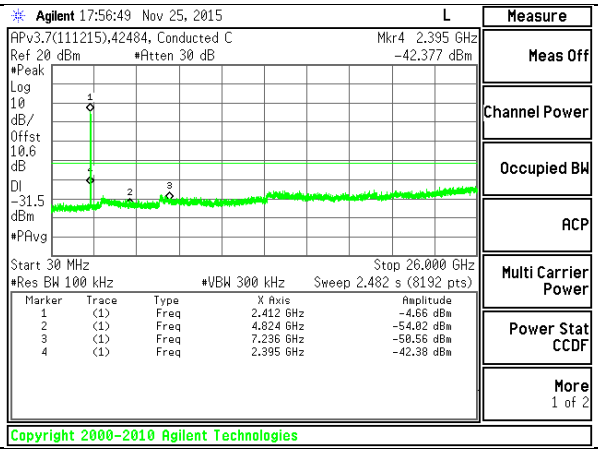


9.6.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

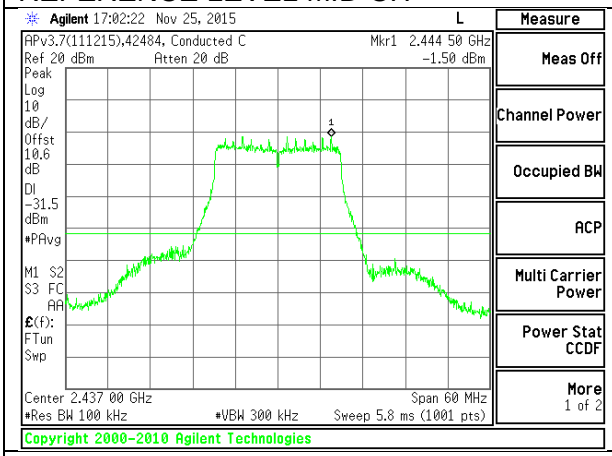
AUTHORIZED BAND EDGE LOW CH



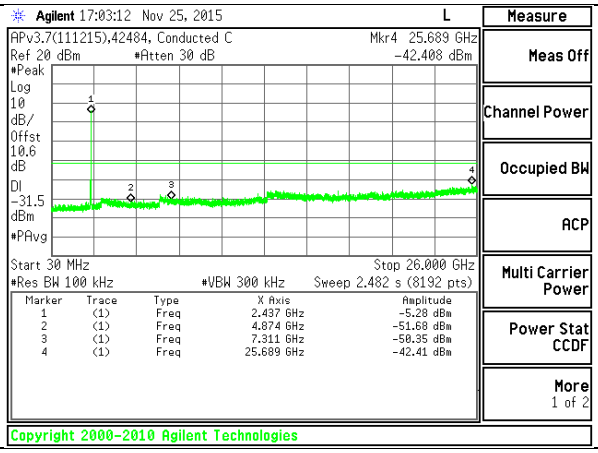
OUT OF BAND LOW CH



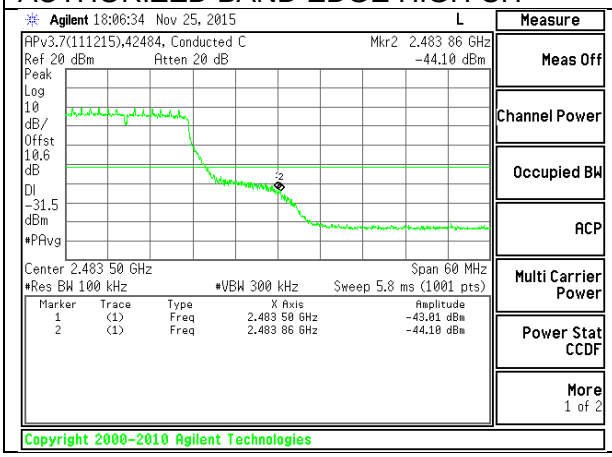
REFERENCE LEVEL MID CH



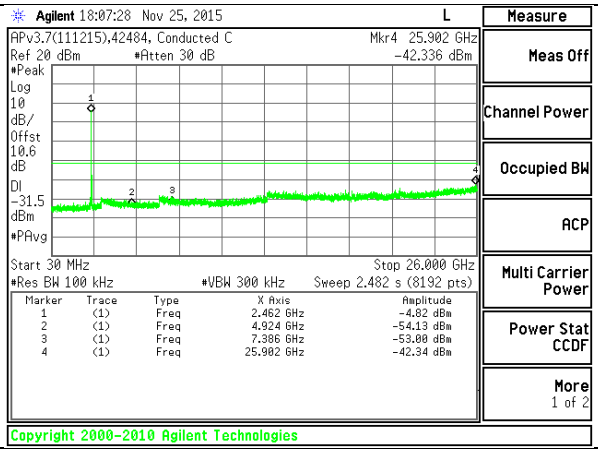
OUT OF BAND MID CH



AUTHORIZED BAND EDGE HIGH CH



OUT OF BAND HIGH CH



10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor = 10 log (1/x).

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

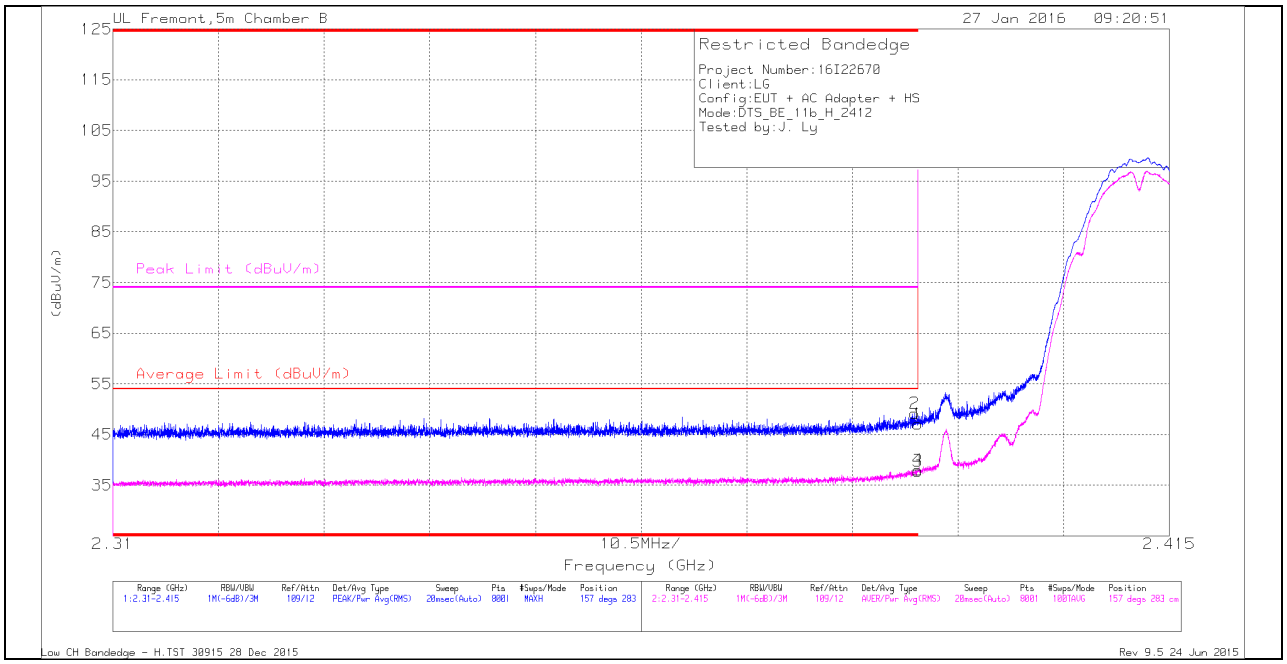
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

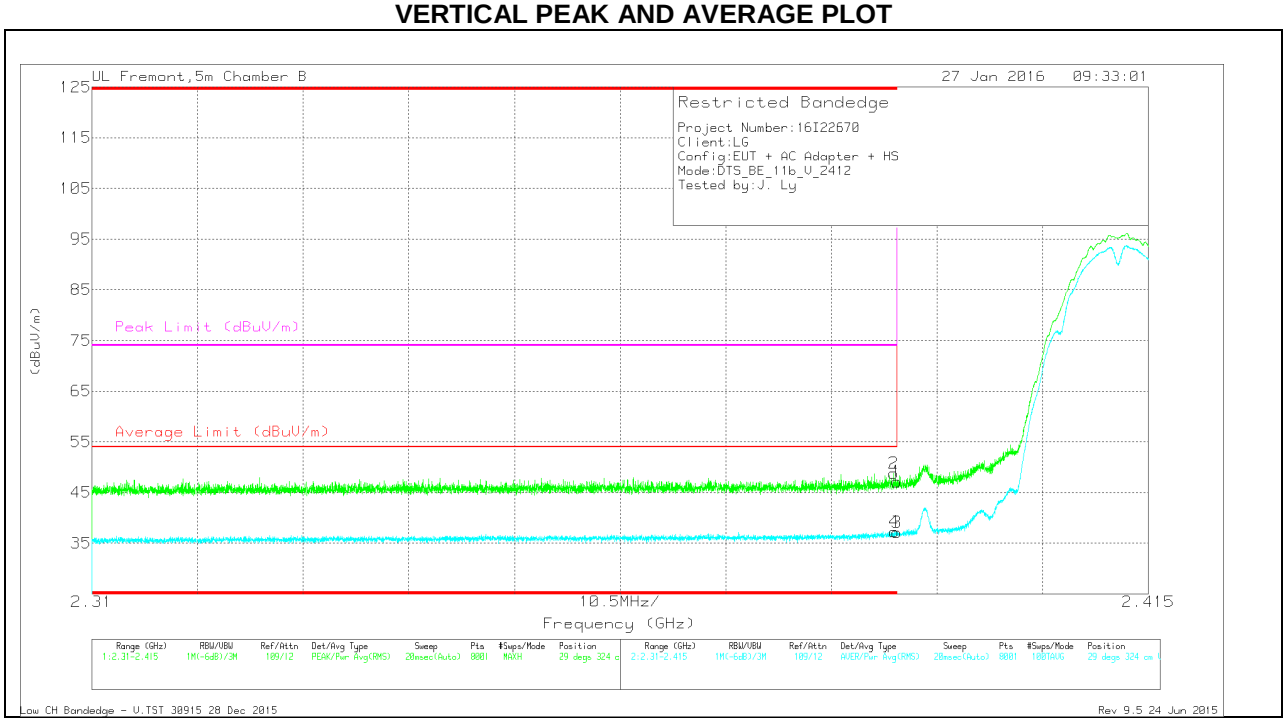
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.99	Pk	32	-21.9	0	47.09	-	-	74	-26.91	157	283	H
2	* 2.39	39.06	Pk	32	-21.9	0	49.16	-	-	74	-24.84	157	283	H
3	* 2.39	27.71	RMS	32	-21.9	0	37.81	54	-16.19	-	-	157	283	H
4	* 2.39	27.86	RMS	32	-21.9	0	37.96	54	-16.04	-	-	157	283	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	37.03	Pk	32	-21.9	0	47.13	-	-	74	-26.87	29	324	V
2	* 2.39	38.75	Pk	32	-21.9	0	48.85	-	-	74	-25.15	29	324	V
3	* 2.39	26.99	RMS	32	-21.9	0	37.09	54	-16.91	-	-	29	324	V
4	* 2.39	27.19	RMS	32	-21.9	0	37.29	54	-16.71	-	-	29	324	V

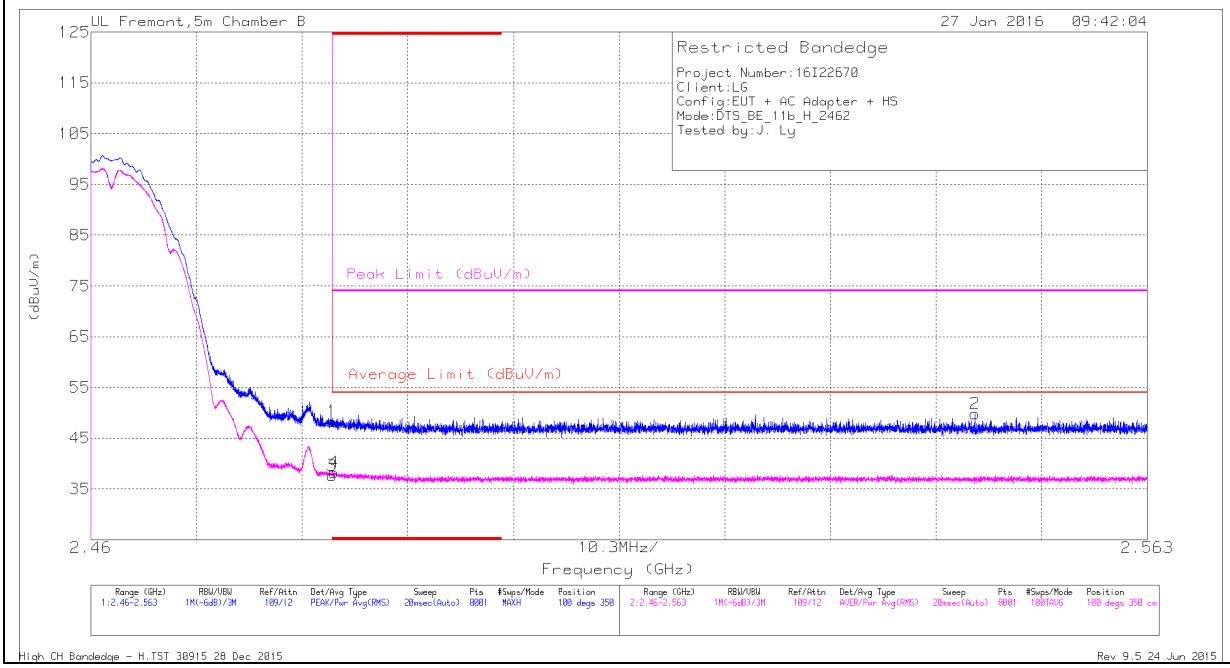
* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

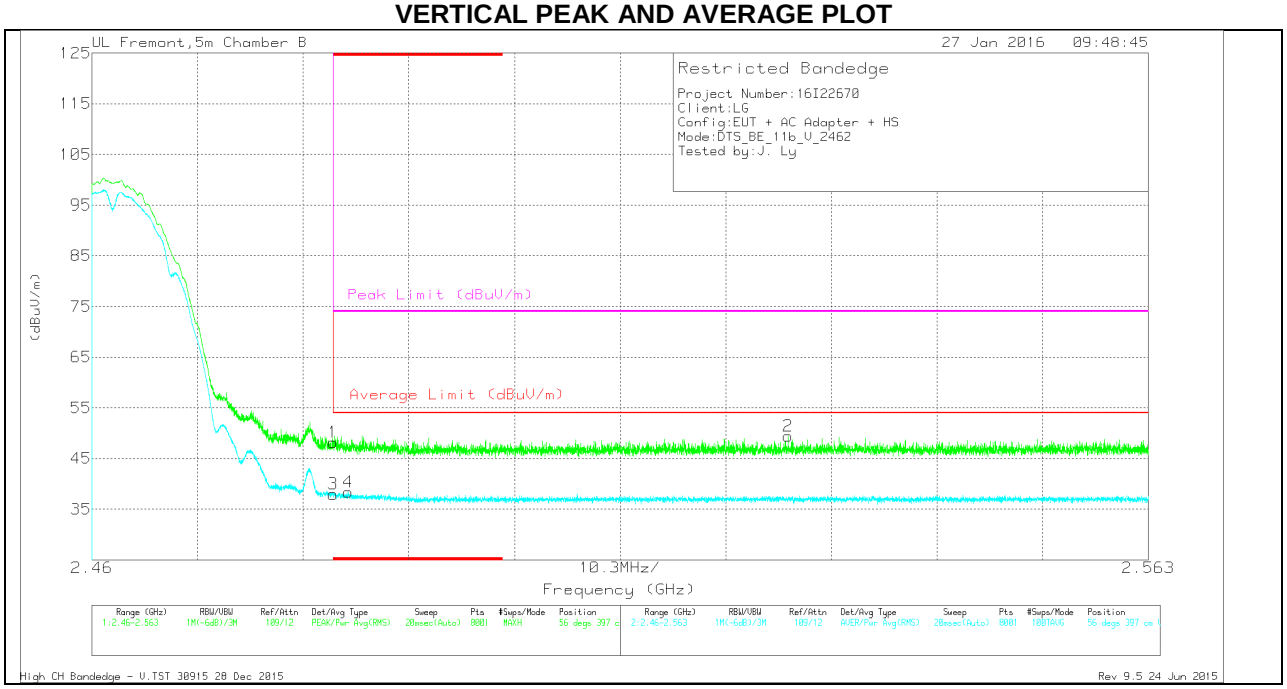
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	37.57	Pk	32.5	-21.8	0	48.27	-	-	74	-25.73	100	350	H
3	* 2.484	26.91	RMS	32.5	-21.8	0	37.61	54	-16.39	-	-	100	350	H
4	* 2.484	27.55	RMS	32.5	-21.8	0	38.25	54	-15.75	-	-	100	350	H
2	2.546	39.12	Pk	32.6	-21.9	0	49.82	-	-	74	-24.18	100	350	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	37.43	Pk	32.5	-21.8	0	48.13	-	-	74	-25.87	56	397	V
3	* 2.484	27.24	RMS	32.5	-21.8	0	37.94	54	-16.06	-	-	56	397	V
4	* 2.485	27.75	RMS	32.5	-21.9	0	38.35	54	-15.65	-	-	56	397	V
2	2.528	38.67	Pk	32.6	-21.8	0	49.47	-	-	74	-24.53	56	397	V

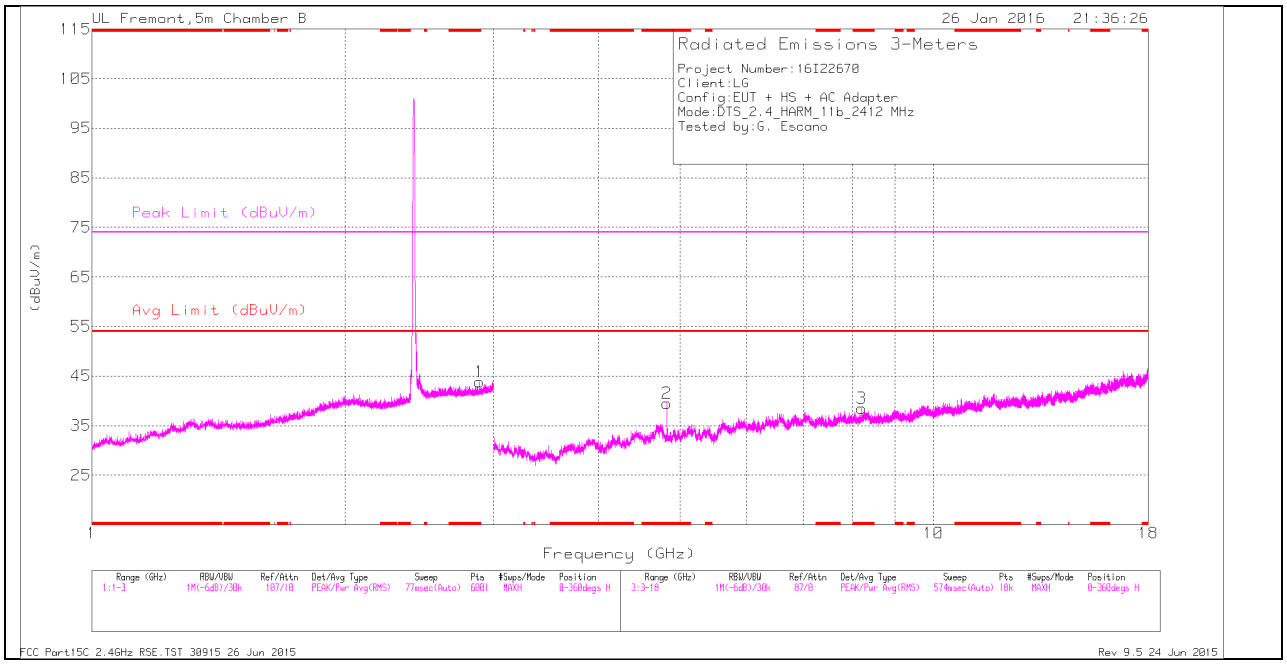
* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

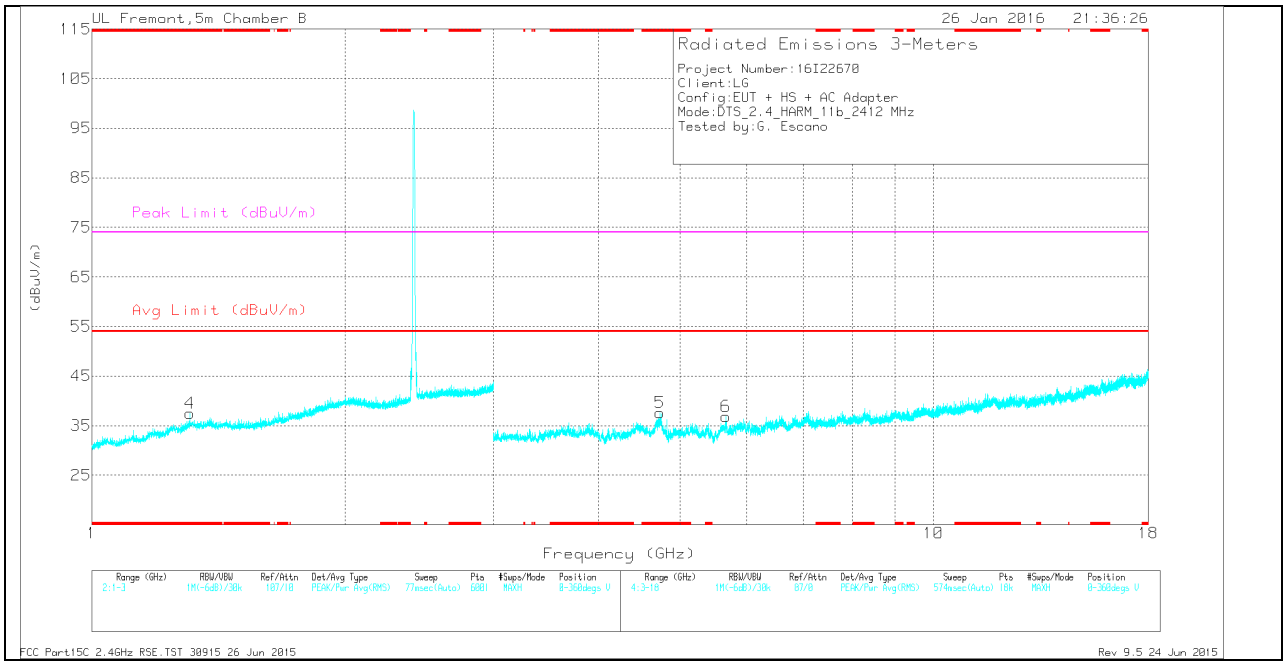
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.886	32.07	Pk	32.6	-20.9	0	43.77	-	-	74	-30.23	0-360	101	H
4	* 1.307	30.53	Pk	29.4	-22.5	0	37.43	-	-	74	-36.57	0-360	199	V
2	* 4.824	36.75	Pk	34.3	-31.6	0	39.45	-	-	74	-34.55	0-360	199	H
3	* 8.212	31.63	Pk	35.7	-28.8	0	38.53	-	-	74	-35.47	0-360	101	H
5	* 4.73	33.95	Pk	34.3	-30.7	0	37.55	-	-	74	-36.45	0-360	101	V
6	5.666	32.91	Pk	34.9	-31	0	36.81	-	-	-	-	0-360	199	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

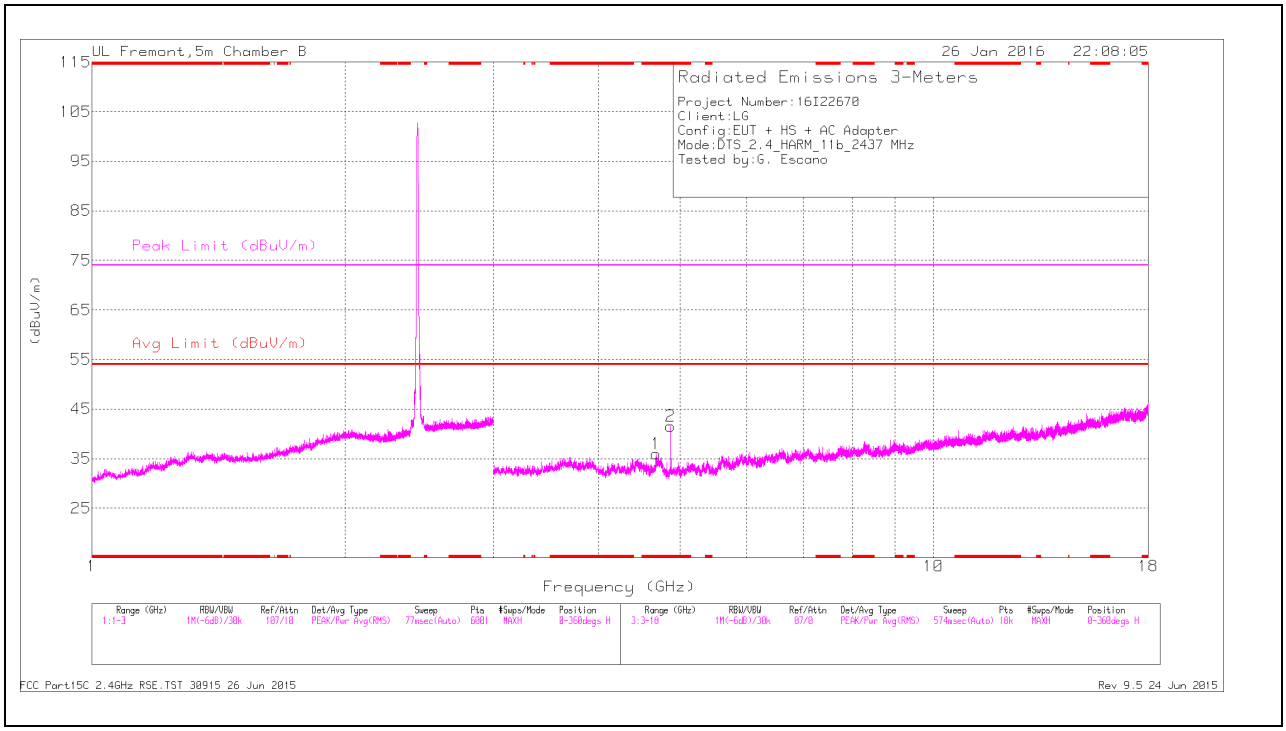
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.885	38.25	PK2	32.6	-20.9	0	49.95	-	-	74	-24.05	246	115	H
* 2.886	26.07	MAv1	32.6	-20.9	0	37.77	54	-16.23	-	-	246	115	H
* 1.307	38.28	PK2	29.4	-22.5	0	45.18	-	-	74	-28.82	327	199	V
* 1.307	25.21	MAv1	29.4	-22.5	0	32.11	54	-21.89	-	-	327	199	V
* 4.824	42.23	PK2	34.3	-31.6	0	44.93	-	-	74	-29.07	184	349	H
* 4.824	34.86	MAv1	34.3	-31.6	0	37.56	54	-16.44	-	-	184	349	H
* 8.213	38.11	PK2	35.7	-28.8	0	45.01	-	-	74	-28.99	144	102	H
* 8.213	26.72	MAv1	35.7	-28.8	0	33.62	54	-20.38	-	-	144	102	H
* 4.729	42.2	PK2	34.3	-30.7	0	45.8	-	-	74	-28.2	64	102	V
* 4.73	30.11	MAv1	34.3	-30.7	0	33.71	54	-20.29	-	-	64	102	V
5.666	40.38	PK2	34.9	-31	0	44.28	-	-	74	-29.72	198	198	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

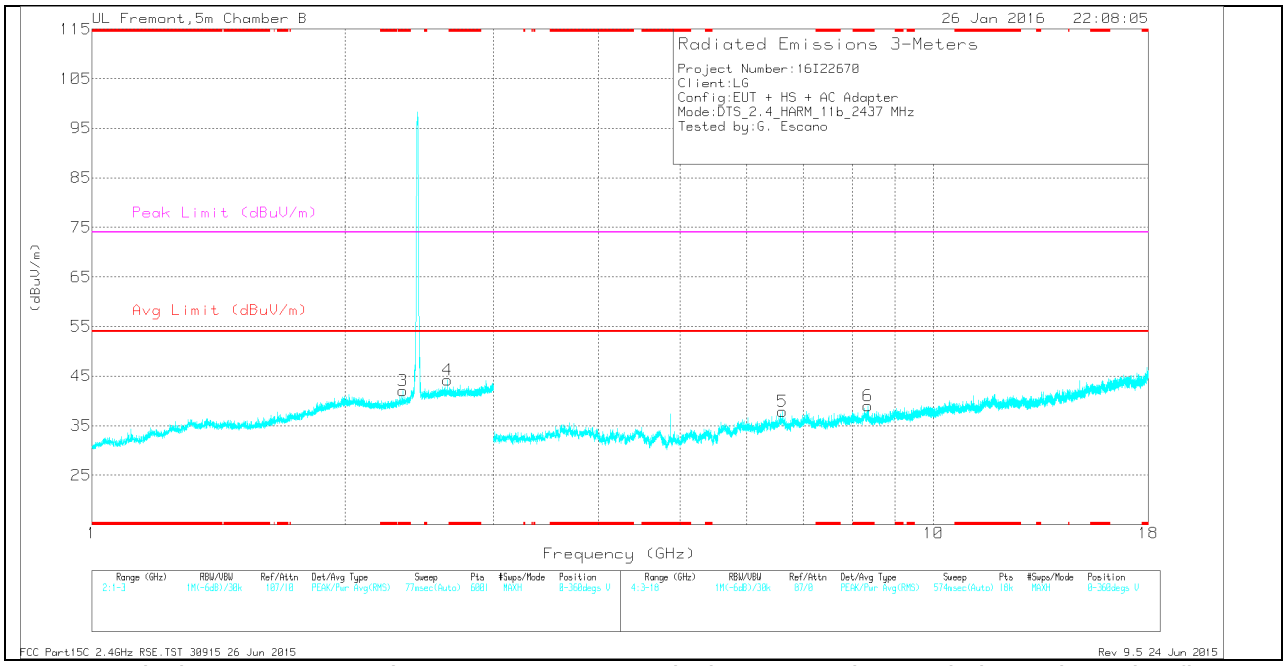
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 2.342	32.3	Pk	31.8	-22	0	42.1	-	-	74	-31.9	0-360	199	V
1	* 4.686	33.52	Pk	34.2	-31.8	0	35.92	-	-	74	-38.08	0-360	101	H
2	* 4.874	39.76	Pk	34.2	-32.4	0	41.56	-	-	74	-32.44	0-360	101	H
6	* 8.351	30.49	Pk	35.7	-27.2	0	38.99	-	-	74	-35.01	0-360	101	V
4	2.644	33.23	Pk	32.7	-21.7	0	44.23	-	-	-	-	0-360	199	V
5	6.616	32.66	Pk	35.9	-30.7	0	37.86	-	-	-	-	0-360	101	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

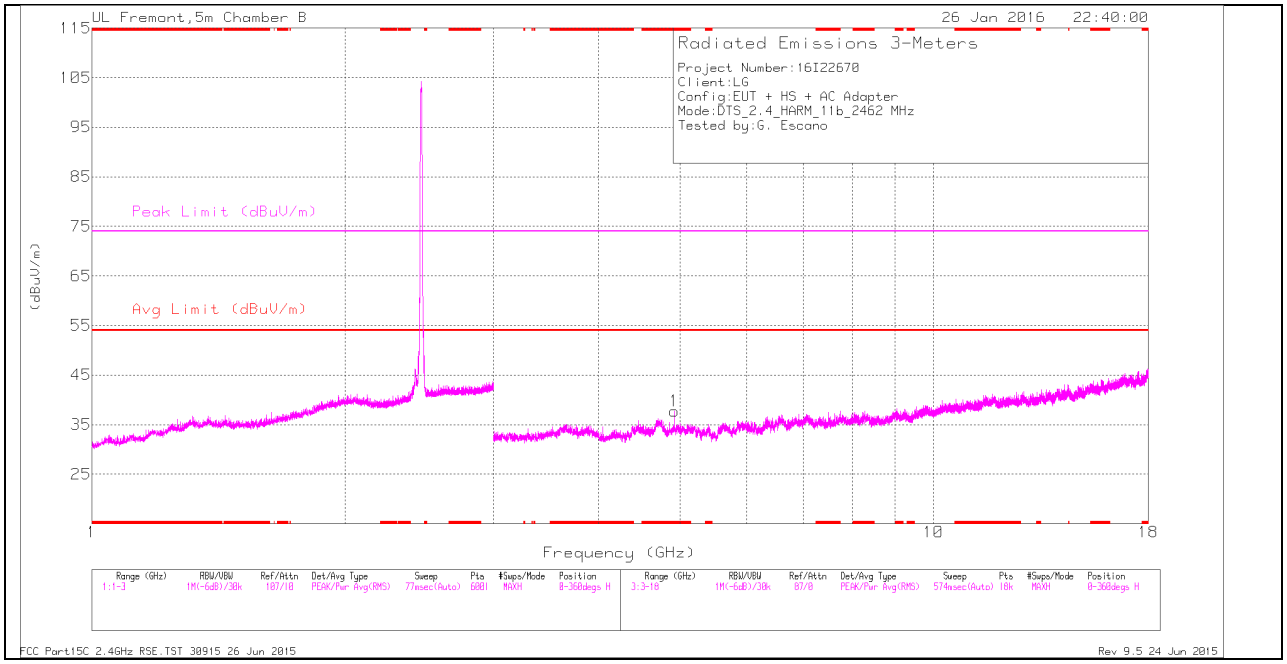
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.342	37.68	PK2	31.8	-21.9	0	47.58	-	-	74	-26.42	321	199	V
* 2.343	26.23	MAv1	31.8	-22	0	36.03	54	-17.97	-	-	321	199	V
* 4.685	40.59	PK2	34.2	-31.8	0	42.99	-	-	74	-31.01	316	102	H
* 4.685	28.26	MAv1	34.2	-31.8	0	30.66	54	-23.34	-	-	316	102	H
* 4.874	44.61	PK2	34.2	-32.4	0	46.41	-	-	74	-27.59	92	300	H
* 4.874	37.82	MAv1	34.2	-32.4	0	39.62	54	-14.38	-	-	92	300	H
* 8.352	37.29	PK2	35.7	-27.2	0	45.79	-	-	74	-28.21	71	102	V
* 8.352	25.91	MAv1	35.7	-27.2	0	34.41	54	-19.59	-	-	71	102	V
2.645	38.31	PK2	32.7	-21.7	0	49.31	-	-	74	-24.69	271	199	V
6.615	38.23	PK2	36	-30.7	0	43.53	-	-	74	-30.47	15	102	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

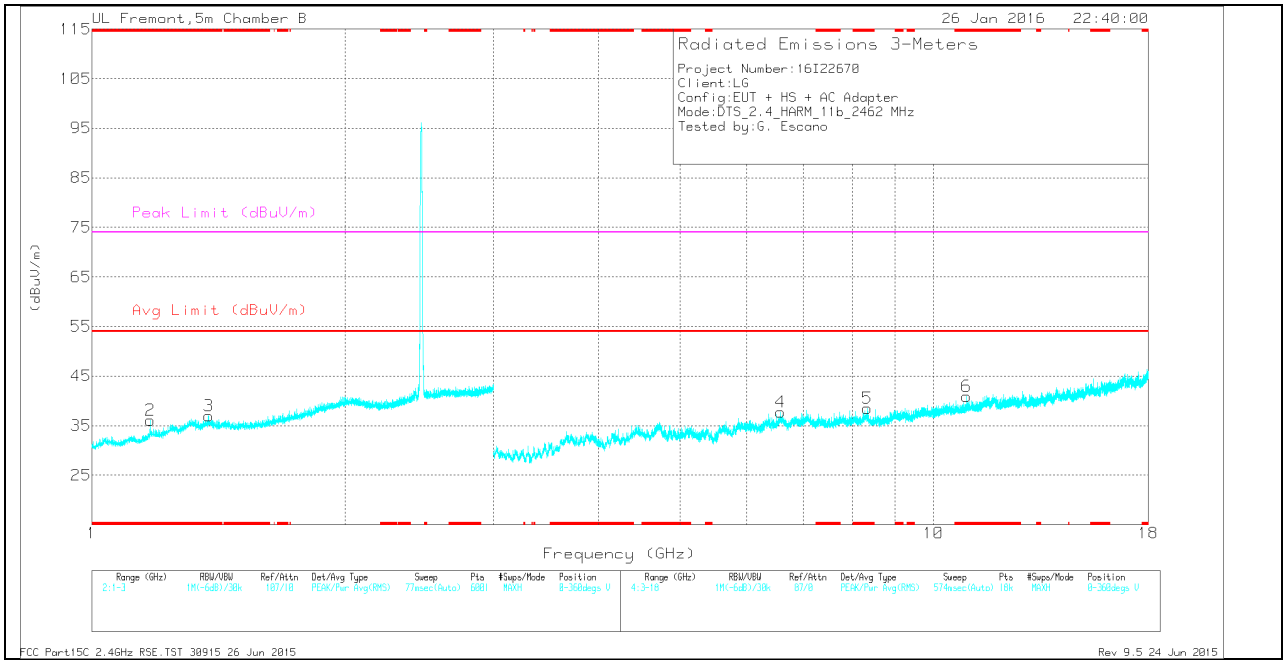
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 1.174	30.98	Pk	28.3	-23.2	0	36.08	-	-	74	-37.92	0-360	199	V
3	* 1.376	29.91	Pk	29.4	-22.3	0	37.01	-	-	74	-36.99	0-360	199	V
1	* 4.924	36.15	Pk	34.1	-32.5	0	37.75	-	-	74	-36.25	0-360	101	H
5	* 8.343	30.05	Pk	35.7	-27.3	0	38.45	-	-	74	-35.55	0-360	102	V
6	* 10.952	28.03	Pk	37.7	-24.8	0	40.93	-	-	74	-33.07	0-360	199	V
4	6.586	32.29	Pk	35.9	-30.5	0	37.69	-	-	-	-	0-360	102	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.174	37.06	PK2	28.3	-23.2	0	42.16	-	-	74	-31.84	105	199	V
* 1.174	25.5	MAv1	28.3	-23.2	0	30.6	54	-23.4	-	-	105	199	V
* 1.375	37.1	PK2	29.4	-22.3	0	44.2	-	-	74	-29.8	61	199	V
* 1.376	25.57	MAv1	29.4	-22.3	0	32.67	54	-21.33	-	-	61	199	V
* 4.924	44.84	PK2	34.1	-32.5	0	46.44	-	-	74	-27.56	126	222	H
* 4.924	34.63	MAv1	34.1	-32.5	0	36.23	54	-17.77	-	-	126	222	H
* 8.343	38.9	PK2	35.7	-27.3	0	47.3	-	-	74	-26.7	189	103	V
* 8.343	26.18	MAv1	35.7	-27.3	0	34.58	54	-19.42	-	-	189	103	V
* 10.951	35.17	PK2	37.7	-24.8	0	48.07	-	-	74	-25.93	301	198	V
* 10.953	23.65	MAv1	37.7	-24.8	0	36.55	54	-17.45	-	-	301	198	V
6.588	40.08	PK2	36	-30.5	0	45.58	-	-	74	-28.42	102	103	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

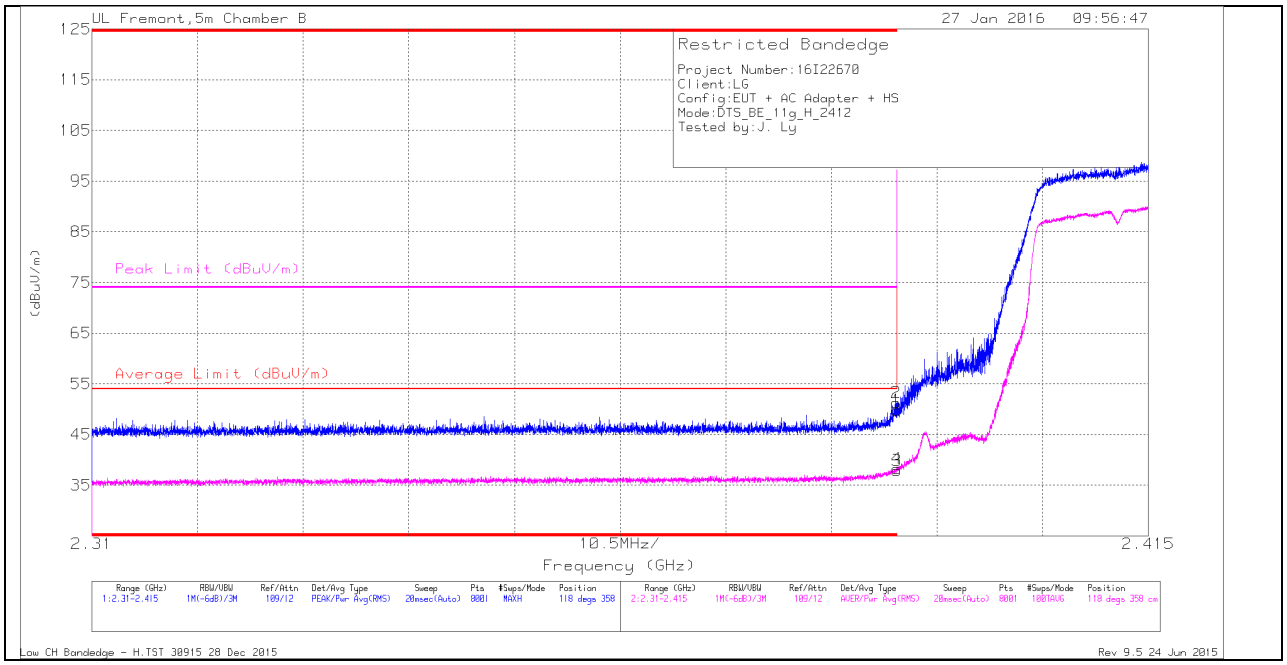
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

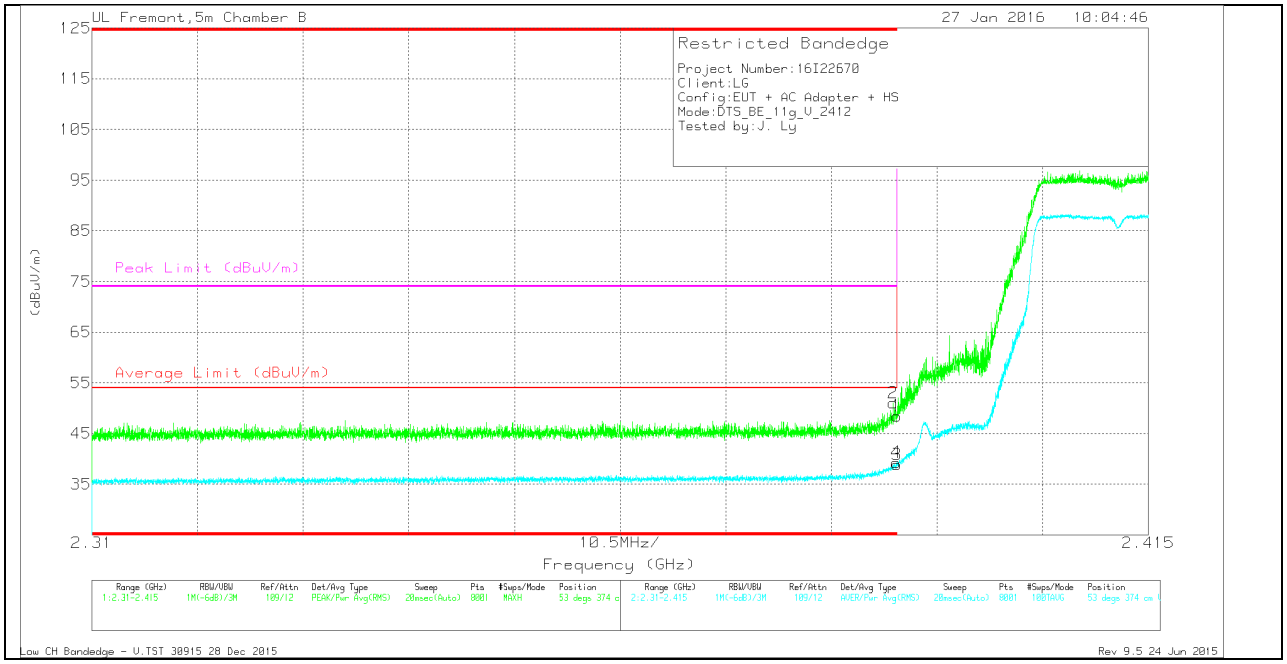
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.69	Pk	32	-21.9	0	49.79	-	-	74	-24.21	118	358	H
2	* 2.39	41.18	Pk	32	-21.9	0	51.28	-	-	74	-22.72	118	358	H
3	* 2.39	27.57	RMS	32	-21.9	.21	37.88	54	-16.12	-	-	118	358	H
4	* 2.39	27.94	RMS	32	-21.9	.21	38.25	54	-15.75	-	-	118	358	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	38.39	Pk	32	-21.9	0	48.49	-	-	74	-25.51	53	374	V
2	* 2.39	40.9	Pk	32	-21.9	0	51	-	-	74	-23	53	374	V
3	* 2.39	28.51	RMS	32	-21.9	.21	38.82	54	-15.18	-	-	53	374	V
4	* 2.39	28.99	RMS	32	-21.9	.21	39.3	54	-14.7	-	-	53	374	V

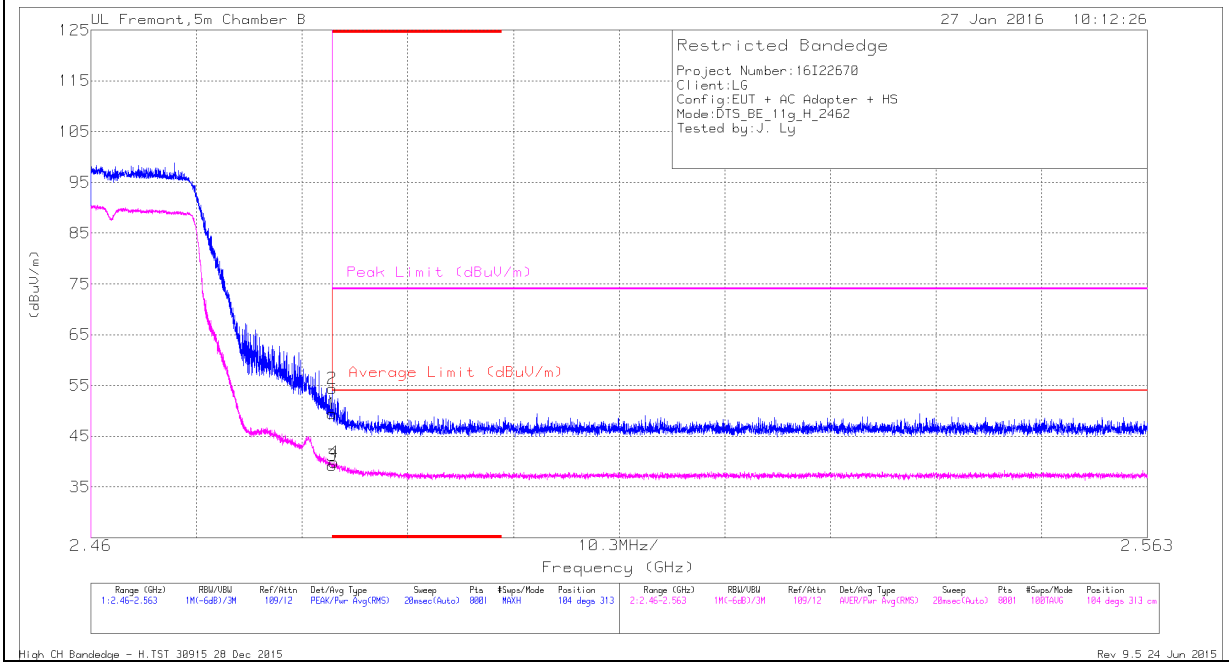
* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

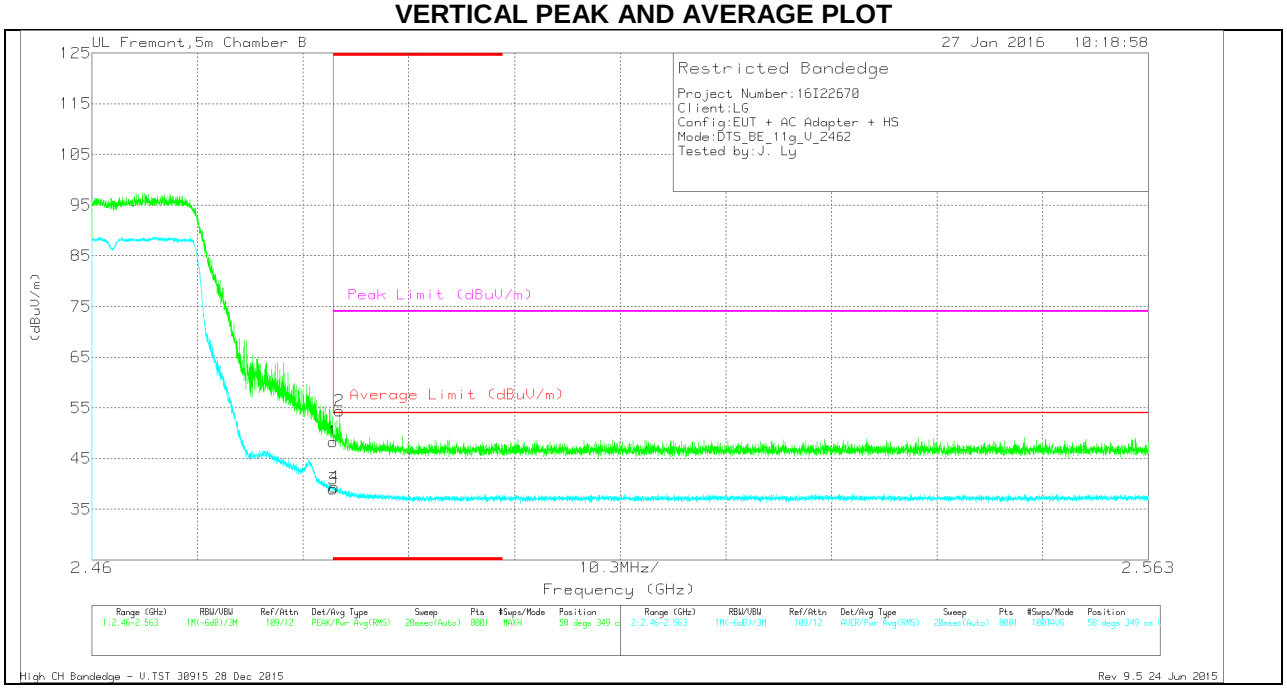
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	38.69	Pk	32.5	-21.8	0	49.39	-	-	74	-24.61	104	313	H
2	* 2.484	43.64	Pk	32.5	-21.8	0	54.34	-	-	74	-19.66	104	313	H
3	* 2.484	28.37	RMS	32.5	-21.8	.21	39.28	54	-14.72	-	-	104	313	H
4	* 2.484	28.99	RMS	32.5	-21.8	.21	39.9	54	-14.1	-	-	104	313	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

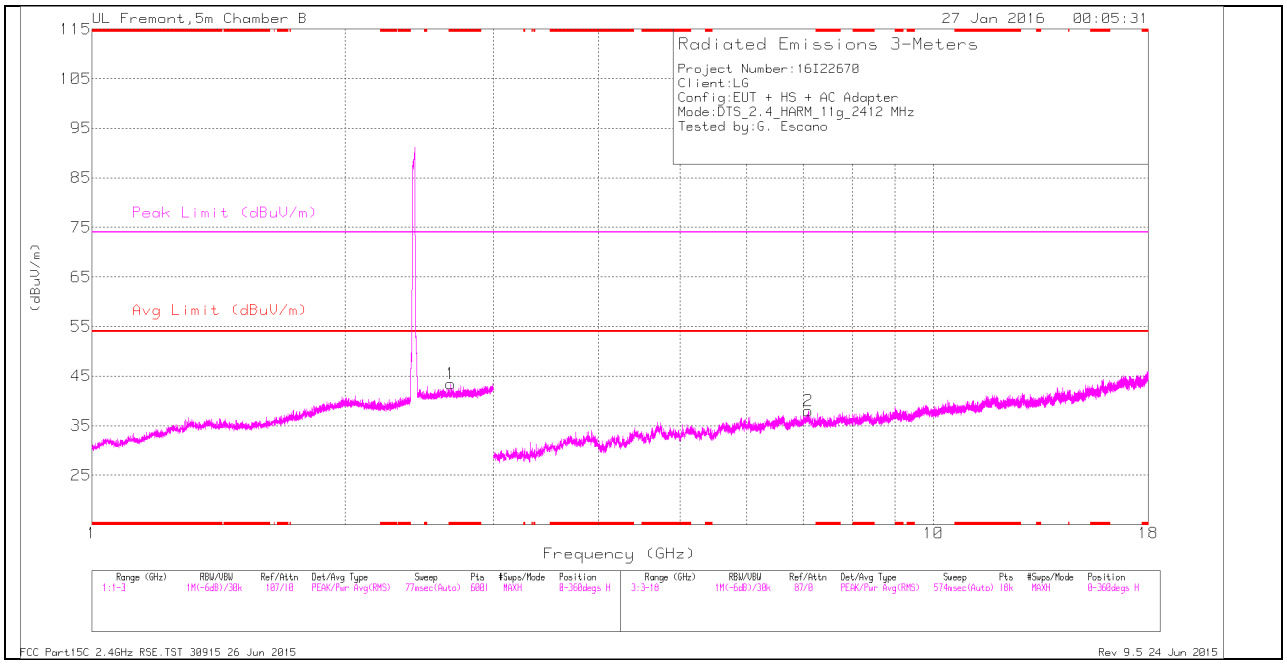
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	37.65	Pk	32.5	-21.8	0	48.35	-	-	74	-25.65	58	349	V
2	* 2.484	43.65	Pk	32.5	-21.8	0	54.35	-	-	74	-19.65	58	349	V
3	* 2.484	28.04	RMS	32.5	-21.8	.21	38.95	54	-15.05	-	-	58	349	V
4	* 2.484	28.51	RMS	32.5	-21.8	.21	39.42	54	-14.58	-	-	58	349	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

RMS - RMS detection

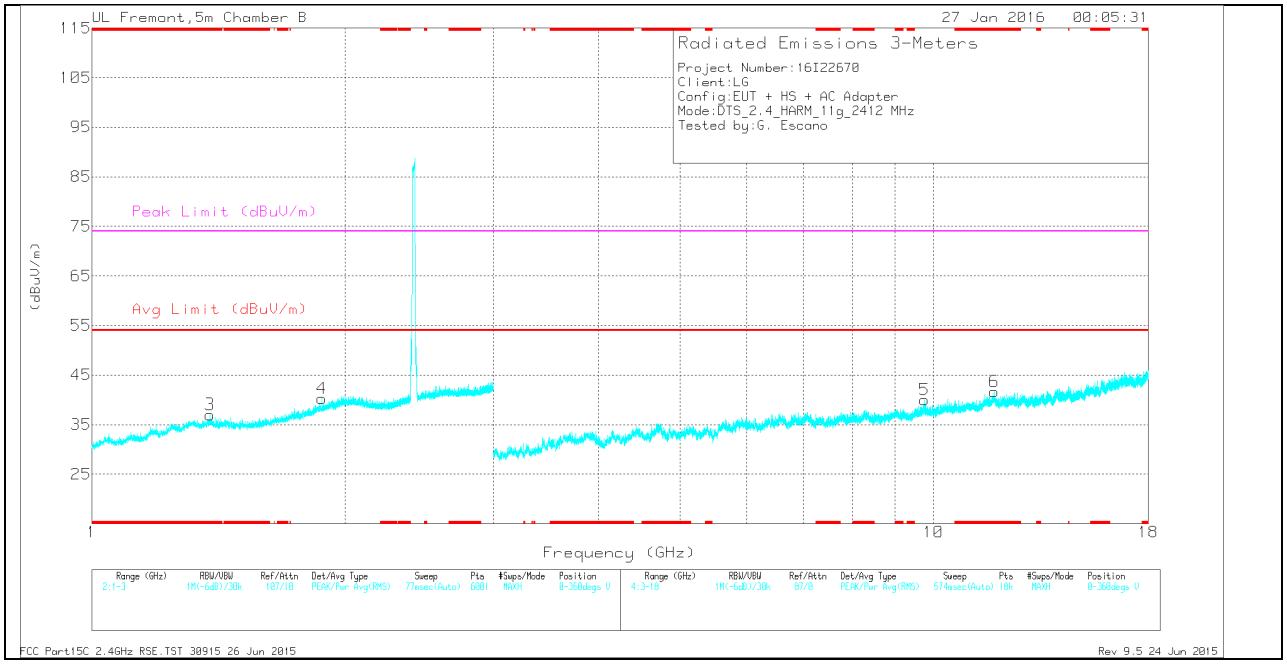
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.669	32.32	Pk	32.7	-21.6	0	43.42	-	-	74	-30.58	0-360	199	H
3	* 1.381	29.93	Pk	29.4	-22.3	0	37.03	-	-	74	-36.97	0-360	199	V
6	* 11.8	27.35	Pk	38.6	-24.3	0	41.65	-	-	74	-32.35	0-360	199	V
4	1.877	30.35	Pk	31.6	-21.7	0	40.25	-	-	-	-	0-360	101	V
2	7.104	31.59	Pk	35.6	-29.2	0	37.99	-	-	-	-	0-360	199	H
5	9.756	29.36	Pk	36.9	-26.2	0	40.06	-	-	-	-	0-360	199	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

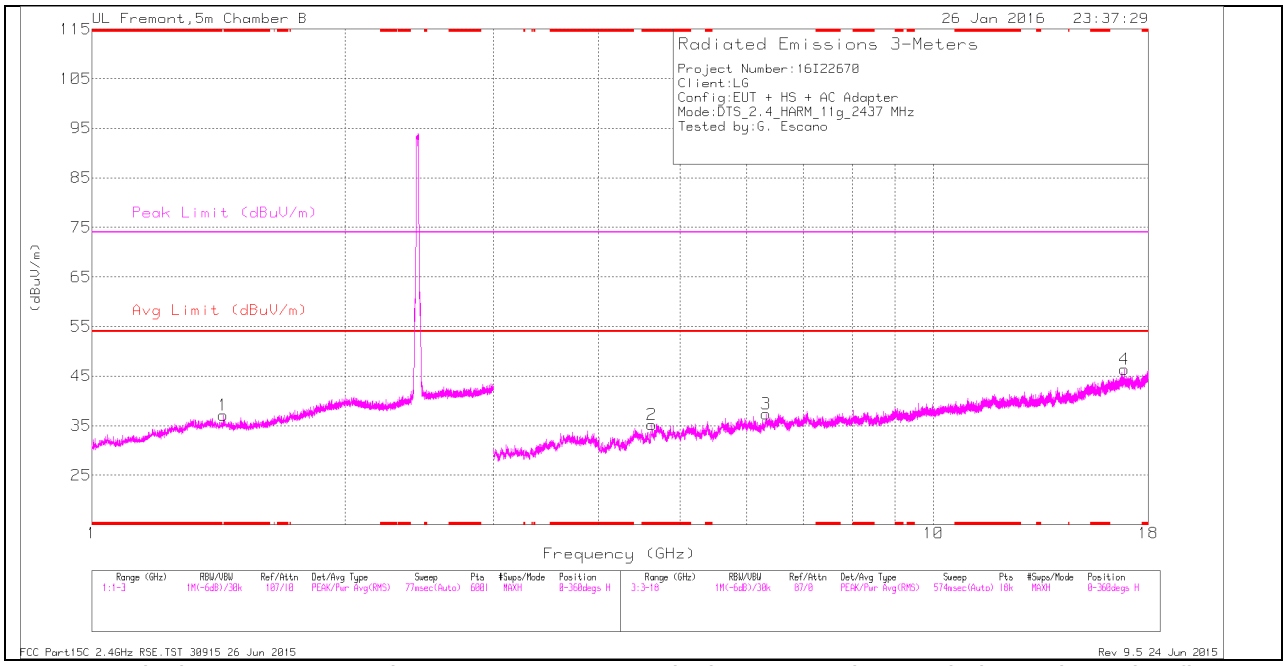
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.669	38.11	PK2	32.7	-21.6	0	49.21	-	-	74	-24.79	295	198	H
* 2.669	26.68	MAv1	32.7	-21.6	0.21	37.99	54	-16.01	-	-	295	198	H
* 1.381	37.75	PK2	29.4	-22.3	0	44.85	-	-	74	-29.15	243	198	V
* 1.38	25.46	MAv1	29.4	-22.3	0.21	32.77	54	-21.23	-	-	243	198	V
* 11.799	35.02	PK2	38.6	-24.3	0	49.32	-	-	74	-24.68	112	198	V
* 11.799	23.59	MAv1	38.6	-24.3	0.21	38.1	54	-5.9	-	-	112	198	V
1.876	36.85	PK2	31.5	-21.7	0	46.65	-	-	74	-27.35	185	102	V
7.106	38.91	PK2	35.6	-29.2	0	45.31	-	-	74	-28.69	122	198	H
9.757	35.59	PK2	36.9	-26.2	0	46.29	-	-	74	-27.71	71	198	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

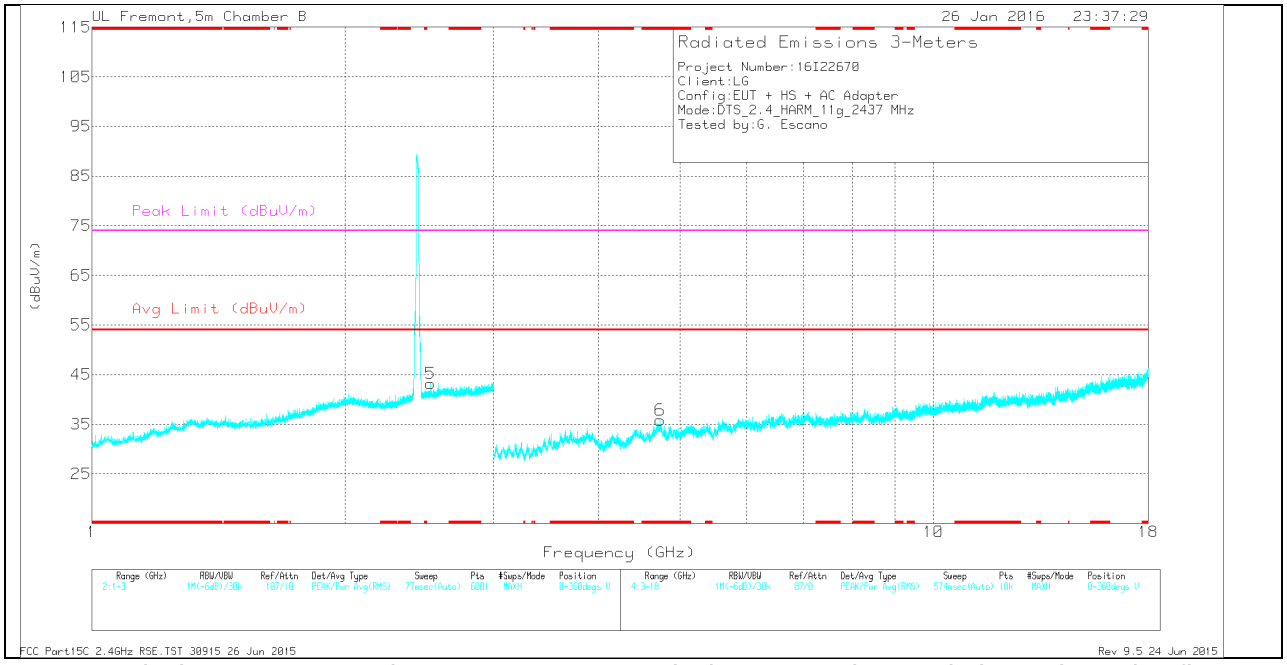
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 4.624	33.85	Pk	34.1	-32.7	0	35.25	-	-	74	-38.75	0-360	199	H
6	* 4.735	32.26	Pk	34.3	-30.7	0	35.86	-	-	74	-38.14	0-360	199	V
1	1.431	30.08	Pk	29.1	-22.1	0	37.08	-	-	-	-	0-360	199	H
5	2.528	32.39	Pk	32.6	-21.8	0	43.19	-	-	-	-	0-360	199	V
3	6.322	32.98	Pk	35.6	-31.2	0	37.38	-	-	-	-	0-360	101	H
4	16.853	25.11	Pk	41.8	-20.6	0	46.31	-	-	-	-	0-360	101	H

* - indicates frequency 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

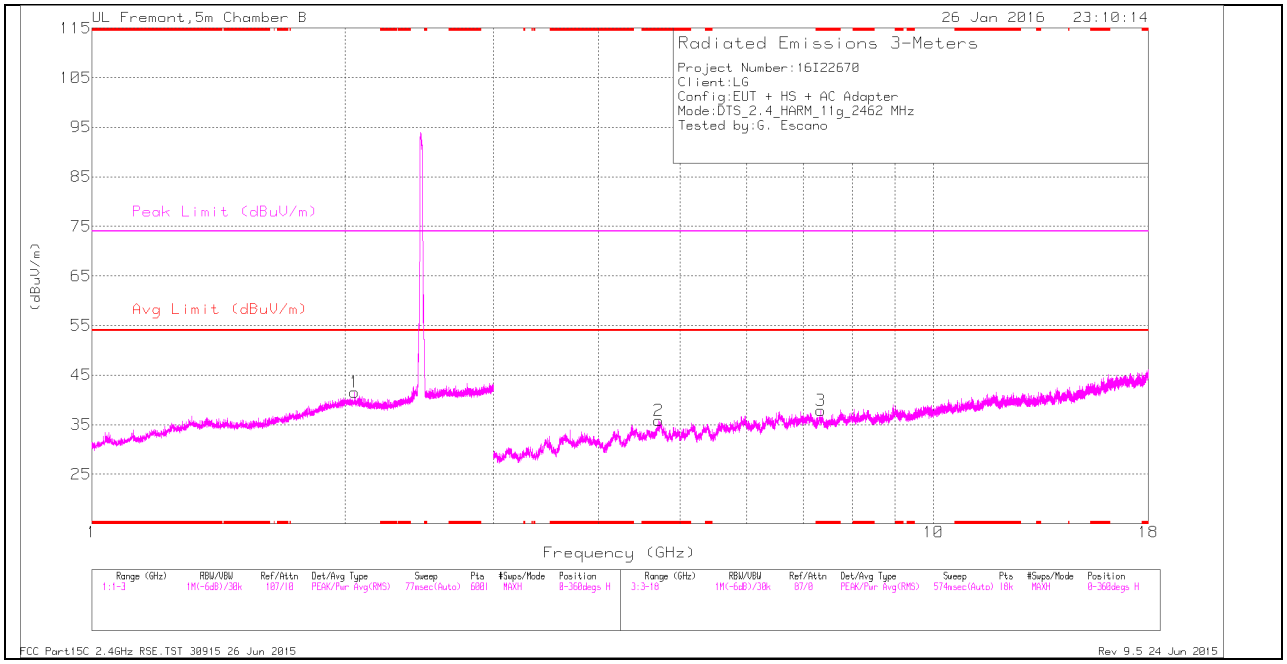
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.624	41.5	PK2	34.1	-32.7	0	42.9	-	-	74	-31.1	185	146	H
* 4.625	30.19	MAv1	34.1	-32.7	0.21	31.80	54	-22.20	-	-	185	146	H
* 4.735	40.94	PK2	34.3	-30.7	0	44.54	-	-	74	-29.46	289	199	V
* 4.736	29.08	MAv1	34.3	-30.7	0.21	32.89	54	-21.11	-	-	289	199	V
1.429	37.3	PK2	29.1	-22.2	0	44.2	-	-	74	-29.8	39	198	H
2.528	38.19	PK2	32.6	-21.8	0	48.99	-	-	74	-25.01	105	198	V
6.322	40.06	PK2	35.6	-31.2	0	44.46	-	-	74	-29.54	205	102	H
16.852	31.96	PK2	41.8	-20.6	0	53.16	-	-	74	-20.84	315	102	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

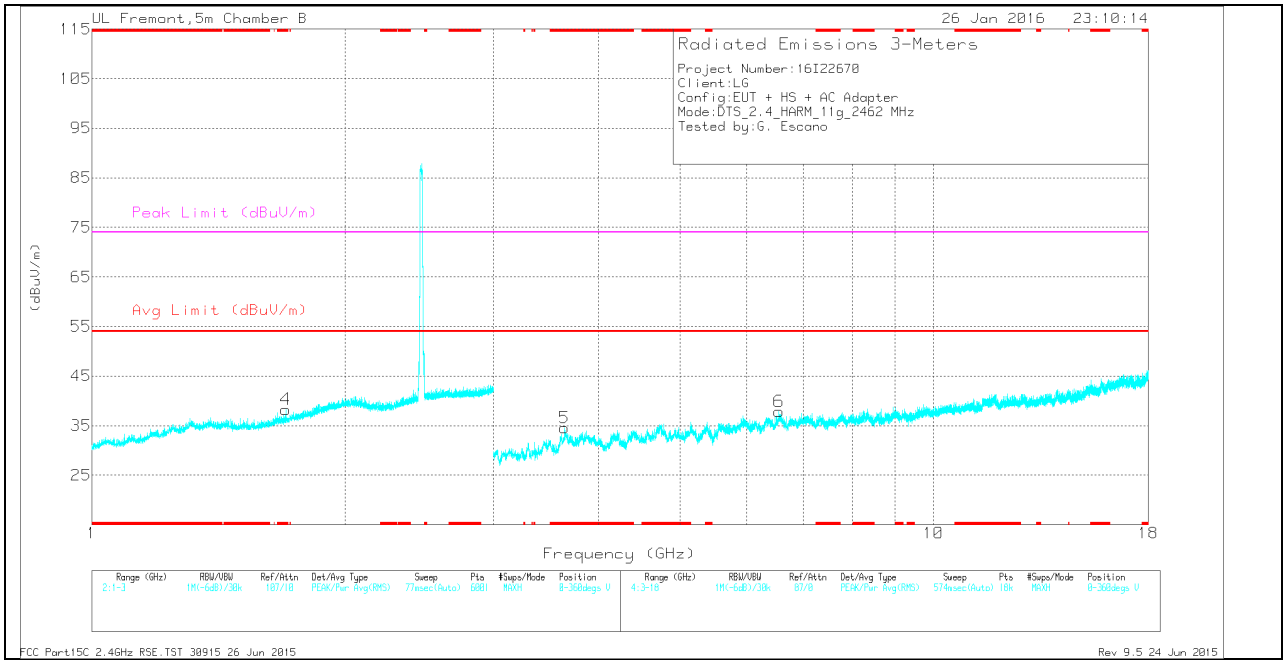
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 1.699	30.4	Pk	29.8	-21.9	0	38.3	-	-	74	-35.7	0-360	101	V
2	* 4.718	32.66	Pk	34.2	-31	0	35.86	-	-	74	-38.14	0-360	101	H
3	* 7.349	32.13	Pk	35.3	-29.6	0	37.83	-	-	74	-36.17	0-360	200	H
5	* 3.644	33.48	Pk	33.7	-32.6	0	34.58	-	-	74	-39.42	0-360	102	V
1	2.053	31.02	Pk	32.1	-21.6	0	41.52	-	-	-	-	0-360	200	H
6	6.553	32.35	Pk	35.9	-30.4	0	37.85	-	-	-	-	0-360	200	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.699	37.02	PK2	29.8	-21.9	0	44.92	-	-	74	-29.08	155	102	V
* 1.699	25.15	MAv1	29.8	-21.9	0.21	33.26	54	-20.74	-	-	155	102	V
* 4.718	39.97	PK2	34.2	-31	0	43.17	-	-	74	-30.83	112	124	H
* 4.719	28.24	MAv1	34.3	-31	0.21	31.75	54	-22.25	-	-	112	124	H
* 7.349	38.92	PK2	35.3	-29.6	0	44.62	-	-	74	-29.38	85	199	H
* 7.349	27.55	MAv1	35.3	-29.6	0.21	33.46	54	-20.54	-	-	85	199	H
* 3.645	40.38	PK2	33.7	-32.6	0	41.48	-	-	74	-32.52	134	103	V
* 3.645	28.65	MAv1	33.7	-32.6	0.21	29.96	54	-24.04	-	-	134	103	V
2.051	38.05	PK2	32.1	-21.7	0	48.45	-	-	74	-25.55	323	199	H
6.555	39.37	PK2	35.9	-30.4	0	44.87	-	-	74	-29.13	29	199	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

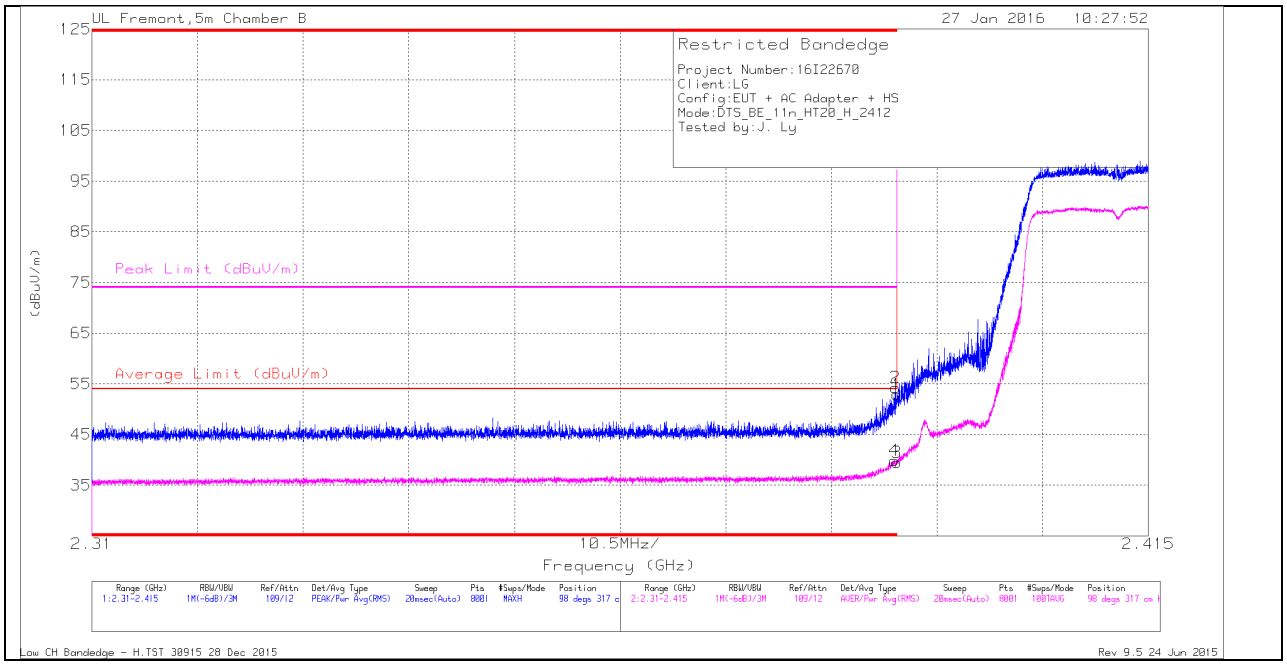
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.1.3. TX ABOVE 1 GHz 802.11n MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

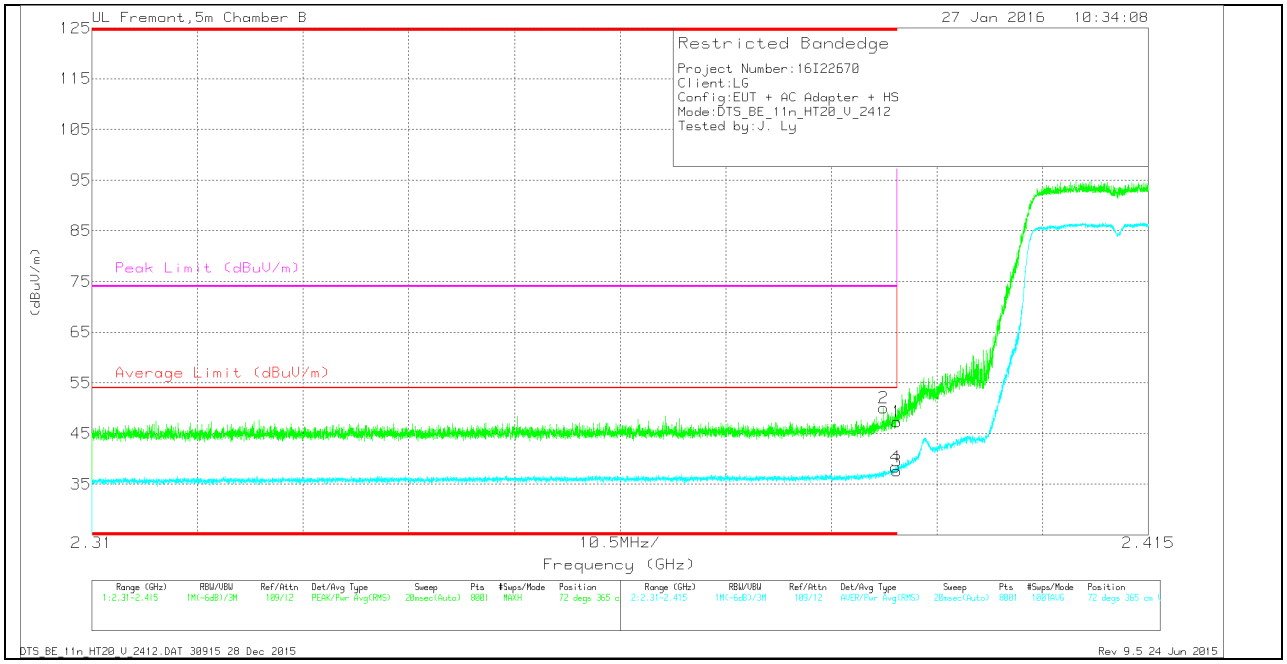
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.75	Pk	32	-21.9	0	52.85	-	-	74	-21.15	98	317	H
2	* 2.39	44.18	Pk	32	-21.9	0	54.28	-	-	74	-19.72	98	317	H
3	* 2.39	29.18	RMS	32	-21.9	.23	39.51	54	-14.49	-	-	98	317	H
4	* 2.39	29.55	RMS	32	-21.9	.23	39.88	54	-14.12	-	-	98	317	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.389	39.93	Pk	32	-21.9	0	50.03	-	-	74	-23.97	72	365	V
1	* 2.39	37.23	Pk	32	-21.9	0	47.33	-	-	74	-26.67	72	365	V
3	* 2.39	27.29	RMS	32	-21.9	.23	37.62	54	-16.38	-	-	72	365	V
4	* 2.39	28.02	RMS	32	-21.9	.23	38.35	54	-15.65	-	-	72	365	V

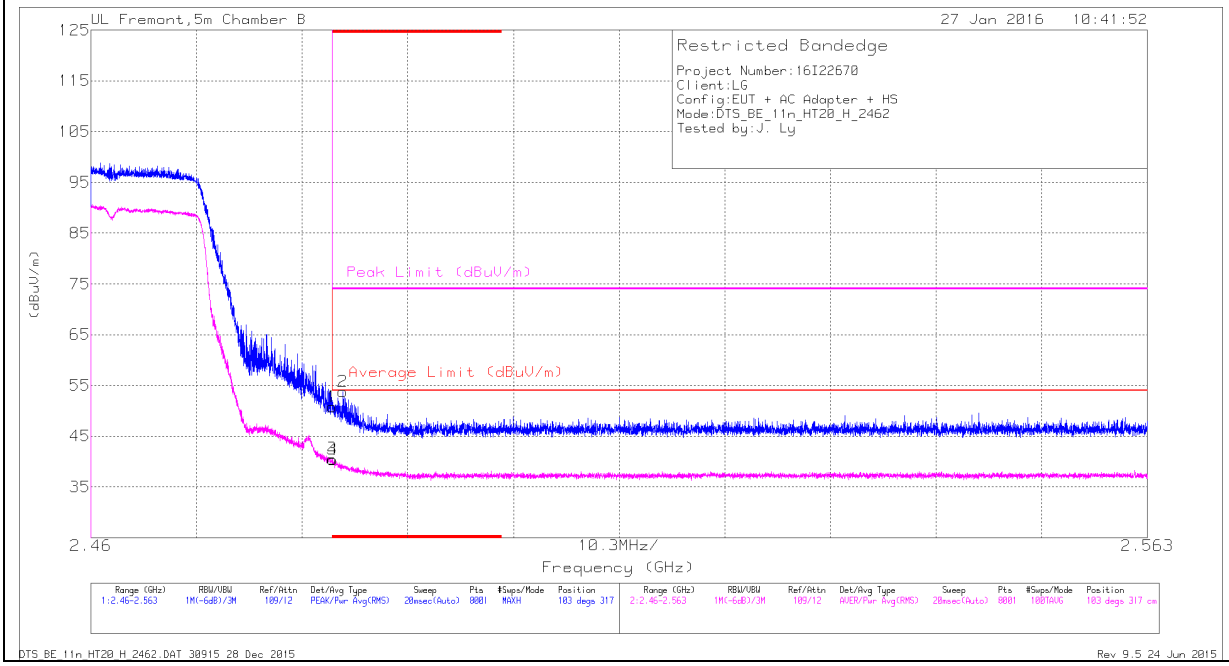
* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

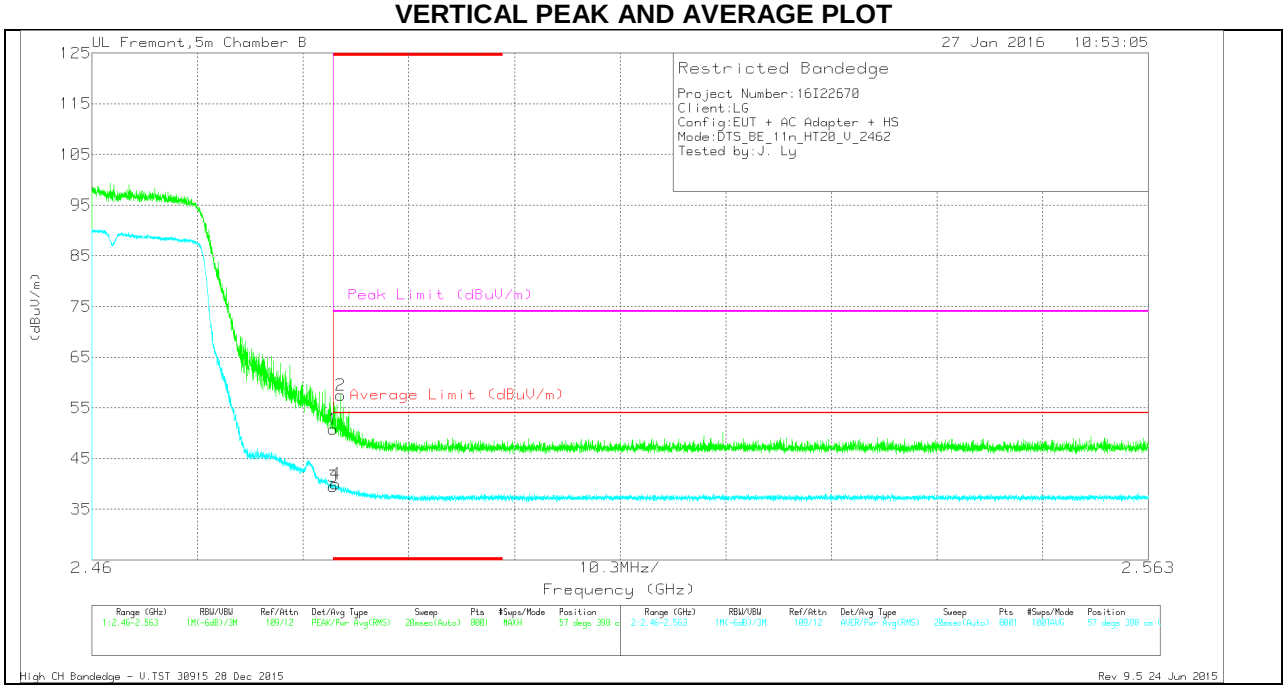
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.08	Pk	32.5	-21.8	0	50.78	-	-	74	-23.22	103	317	H
2	* 2.485	43.18	Pk	32.5	-21.9	0	53.78	-	-	74	-20.22	103	317	H
3	* 2.484	29.61	RMS	32.5	-21.8	.23	40.54	54	-13.46	-	-	103	317	H
4	* 2.484	29.48	RMS	32.5	-21.8	.23	40.41	54	-13.59	-	-	103	317	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.14	Pk	32.5	-21.8	0	50.84	-	-	74	-23.16	57	398	V
2	* 2.484	46.86	Pk	32.5	-21.9	0	57.46	-	-	74	-16.54	57	398	V
3	* 2.484	28.6	RMS	32.5	-21.8	.23	39.53	54	-14.47	-	-	57	398	V
4	* 2.484	29	RMS	32.5	-21.8	.23	39.93	54	-14.07	-	-	57	398	V

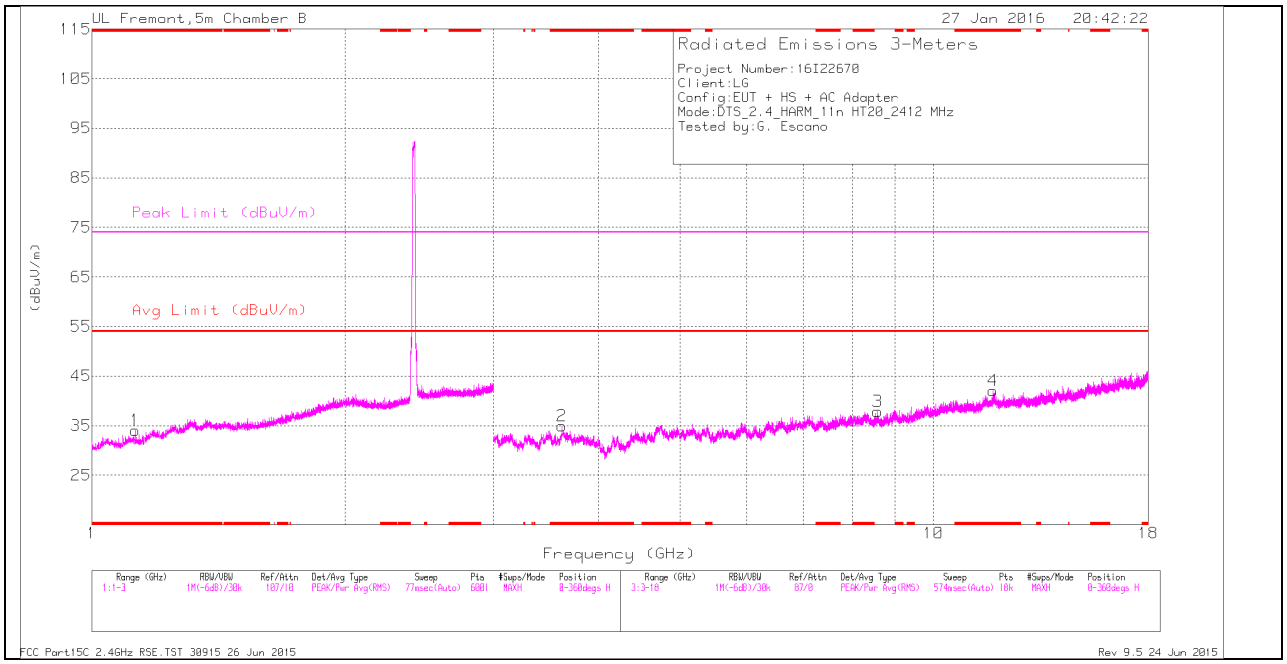
* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

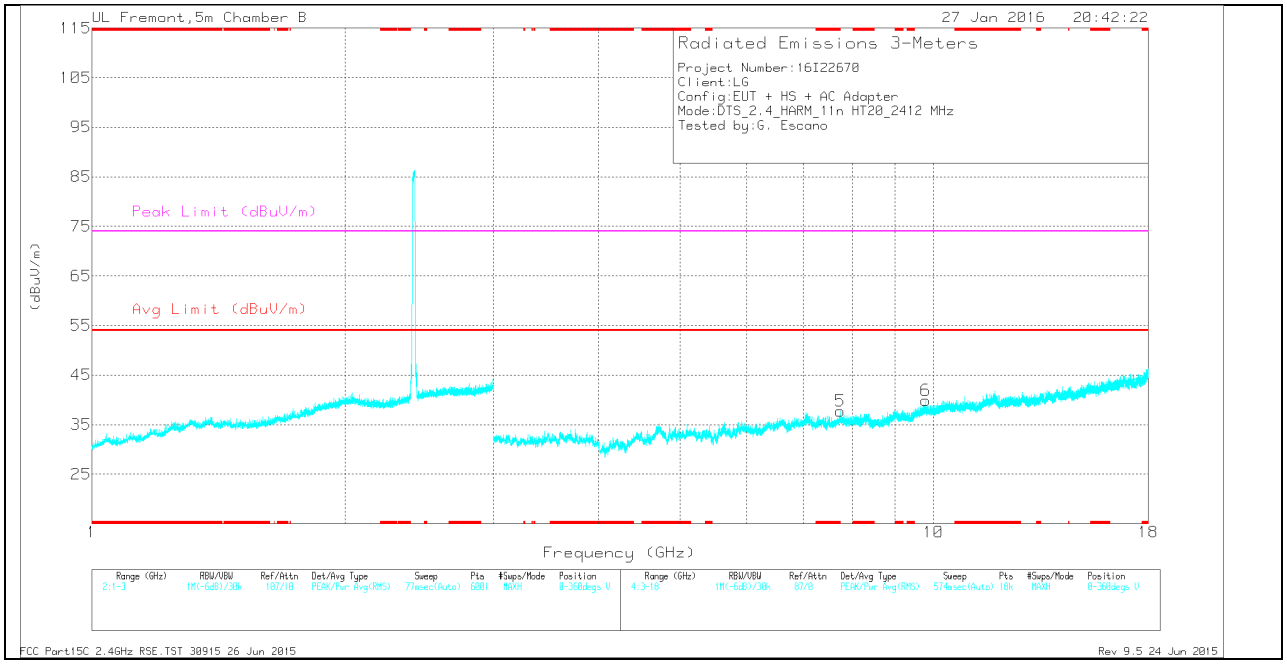
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.126	29.77	Pk	27.8	-23.5	0	34.07	-	-	74	-39.93	0-360	199	H
2	* 3.619	34	Pk	33.8	-32.9	0	34.9	-	-	74	-39.1	0-360	199	H
4	* 11.765	27.89	Pk	38.6	-24.5	0	41.99	-	-	74	-32.01	0-360	101	H
5	7.752	30.56	Pk	35.5	-28.3	0	37.76	-	-	-	-	0-360	200	V
3	8.584	29.76	Pk	35.7	-27.6	0	37.86	-	-	-	-	0-360	101	H
6	9.794	28.98	Pk	37	-26.1	0	39.88	-	-	-	-	0-360	101	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

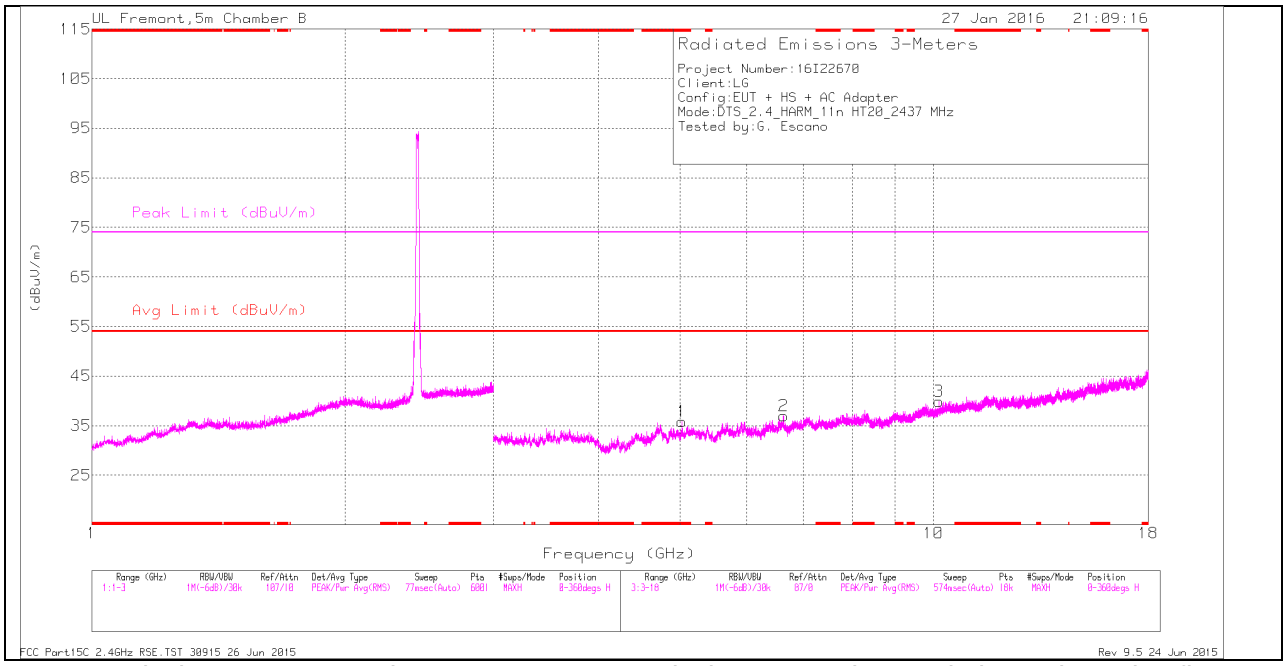
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.126	36.84	PK2	27.8	-23.5	0	41.14	-	-	74	-32.86	312	198	H
* 1.126	25.14	MAv1	27.8	-23.5	0.23	29.67	54	-24.33	-	-	312	198	H
* 3.62	41.24	PK2	33.8	-32.9	0	42.14	-	-	74	-31.86	281	198	H
* 3.62	29.42	MAv1	33.8	-32.9	0.23	30.55	54	-23.45	-	-	281	198	H
* 11.766	34.9	PK2	38.6	-24.5	0	49	-	-	74	-25	255	103	H
* 11.764	23.3	MAv1	38.6	-24.5	0.23	37.63	54	-16.37	-	-	255	103	H
7.753	37.97	PK2	35.5	-28.3	0	45.17	-	-	74	-28.83	165	199	V
8.583	36.64	PK2	35.7	-27.7	0	44.64	-	-	74	-29.36	205	103	H
9.793	35.53	PK2	37	-26	0	46.53	-	-	74	-27.47	69	103	V

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

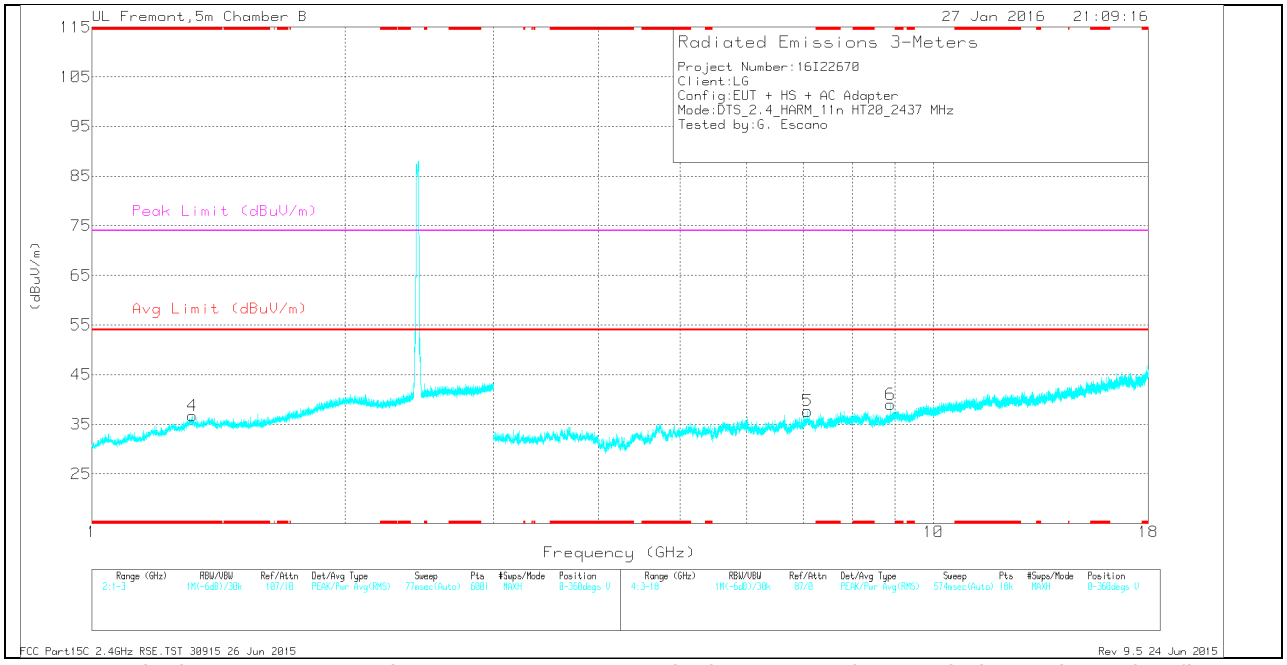
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 1.317	29.87	Pk	29.4	-22.5	0	36.77	-	-	74	-37.23	0-360	199	V
1	* 5.024	32.53	Pk	34	-30.7	0	35.83	-	-	74	-38.17	0-360	101	H
2	6.637	31.76	Pk	35.9	-30.7	0	36.96	-	-	-	-	0-360	101	H
5	7.091	31.57	Pk	35.7	-29.6	0	37.67	-	-	-	-	0-360	101	V
6	8.897	30.2	Pk	35.9	-27.1	0	39	-	-	-	-	0-360	101	V
3	10.147	28.48	Pk	37.3	-25.9	0	39.88	-	-	-	-	0-360	101	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

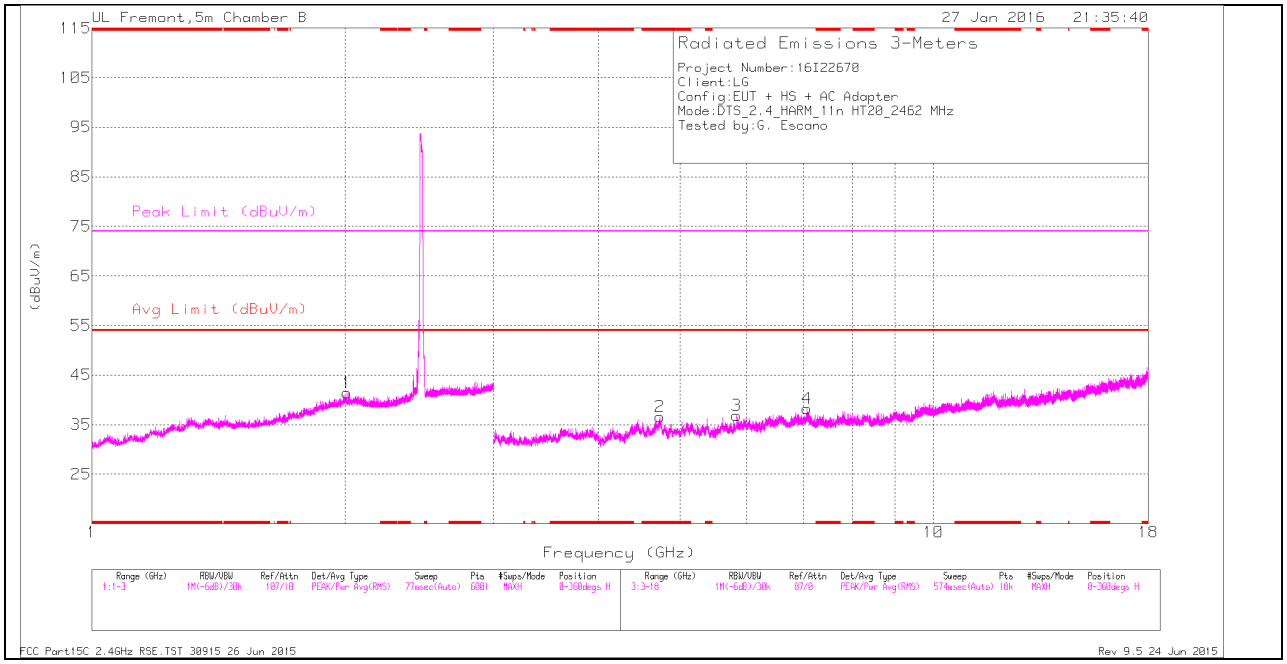
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.318	37.46	PK2	29.4	-22.5	0	44.36	-	-	74	-29.64	155	198	V
* 1.316	25.8	MAv1	29.4	-22.5	0.23	32.93	54	-21.07	-	-	155	198	V
* 5.024	39.39	PK2	34	-30.7	0	42.69	-	-	74	-31.31	105	102	H
* 5.025	27.4	MAv1	34	-30.7	0.23	30.93	54	-23.07	-	-	105	102	H
6.638	39.03	PK2	35.9	-30.8	0	44.13	-	-	74	-29.87	182	102	H
7.091	38.33	PK2	35.7	-29.6	0	44.43	-	-	74	-29.57	315	102	V
8.895	36.58	PK2	35.9	-27.1	0	45.38	-	-	74	-28.62	231	102	V
10.145	35.23	PK2	37.3	-25.9	0	46.63	-	-	74	-27.37	264	102	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

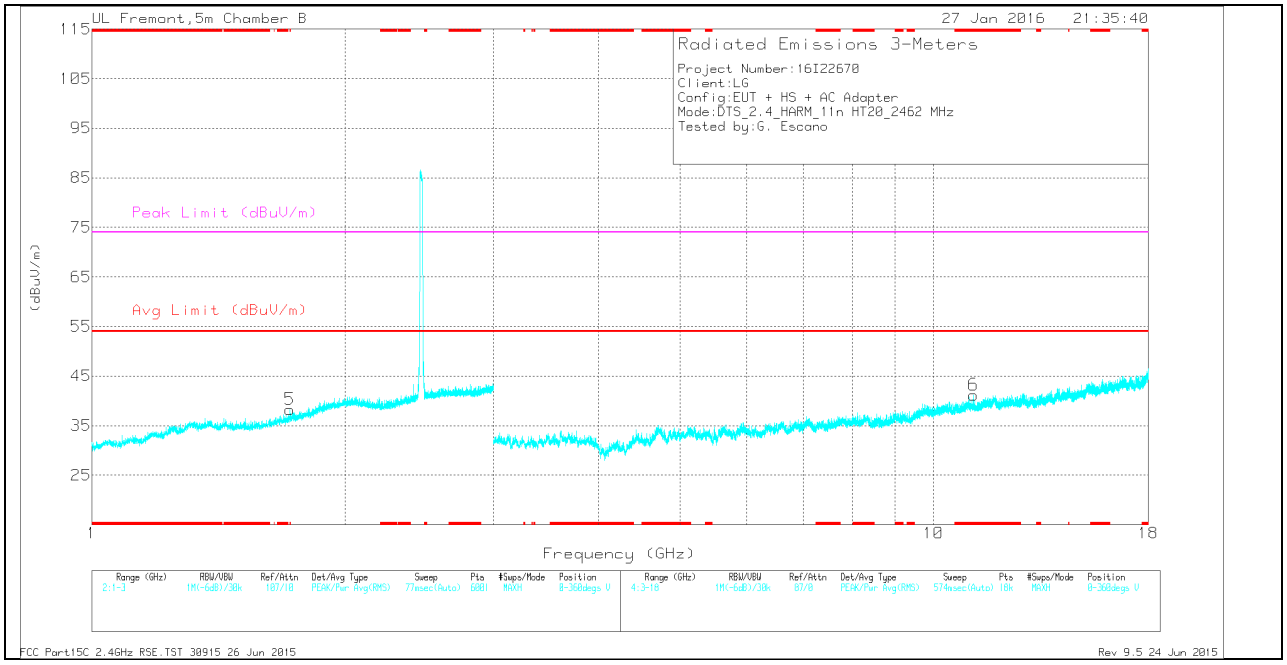
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 1.719	30.2	Pk	29.9	-21.8	0	38.3	-	-	74	-35.7	0-360	199	V
2	* 4.73	33.02	Pk	34.3	-30.7	0	36.62	-	-	74	-37.38	0-360	101	H
6	* 11.151	28.42	Pk	37.8	-25	0	41.22	-	-	74	-32.78	0-360	200	V
1	2.008	30.8	Pk	32.3	-21.7	0	41.4	-	-	-	-	0-360	102	H
3	5.832	33.3	Pk	35.3	-31.7	0	36.9	-	-	-	-	0-360	101	H
4	7.076	32.3	Pk	35.7	-29.8	0	38.2	-	-	-	-	0-360	200	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.719	37.66	PK2	29.9	-21.8	0	45.76	-	-	74	-28.24	205	199	V
* 1.719	25.43	MAv1	29.9	-21.8	0.23	33.76	54	-20.24	-	-	205	199	V
* 4.73	41.28	PK2	34.3	-30.7	0	44.88	-	-	74	-29.12	269	102	H
* 4.729	29.44	MAv1	34.3	-30.7	0.23	33.27	54	-20.73	-	-	269	102	H
* 11.152	35.61	PK2	37.8	-25	0	48.41	-	-	74	-25.59	321	199	V
* 11.151	24	MAv1	37.8	-25	0.23	37.03	54	-16.97	-	-	321	199	V
2.007	37.05	PK2	32.3	-21.7	0	47.65	-	-	74	-26.35	261	155	H
5.833	39.39	PK2	35.3	-31.7	0	42.99	-	-	74	-31.01	171	102	H
7.078	38.85	PK2	35.7	-29.8	0	44.75	-	-	74	-29.25	235	199	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

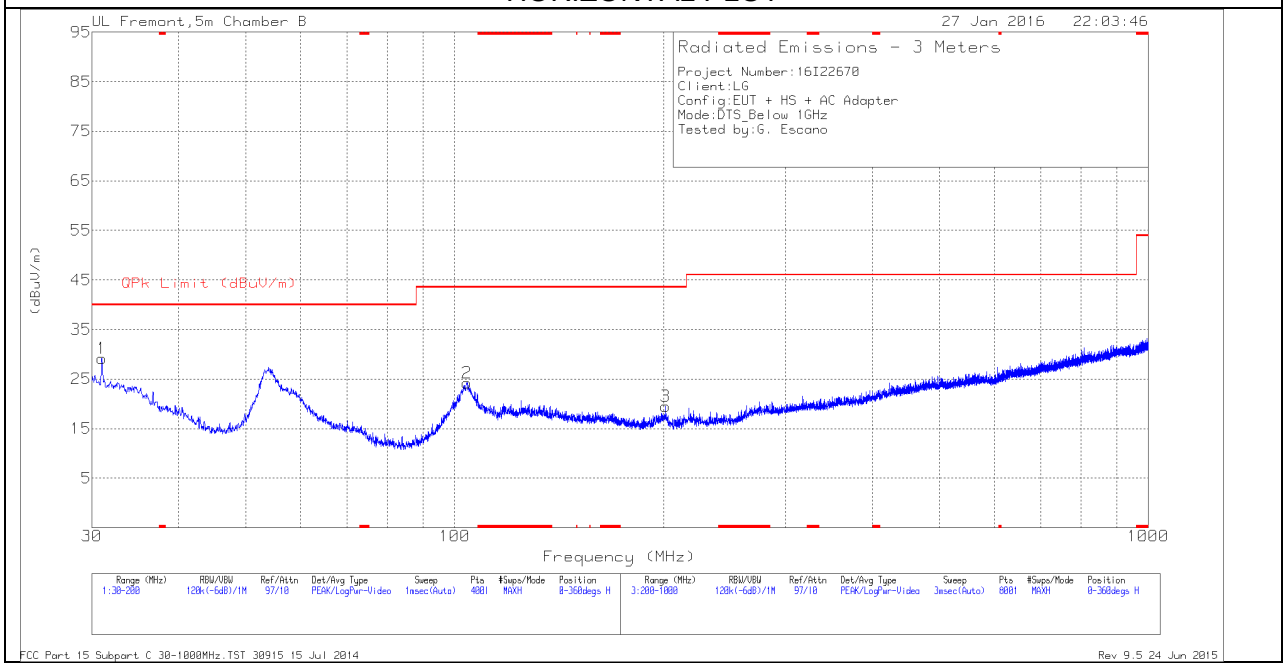
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

11. WORST-CASE BELOW 1 GHz

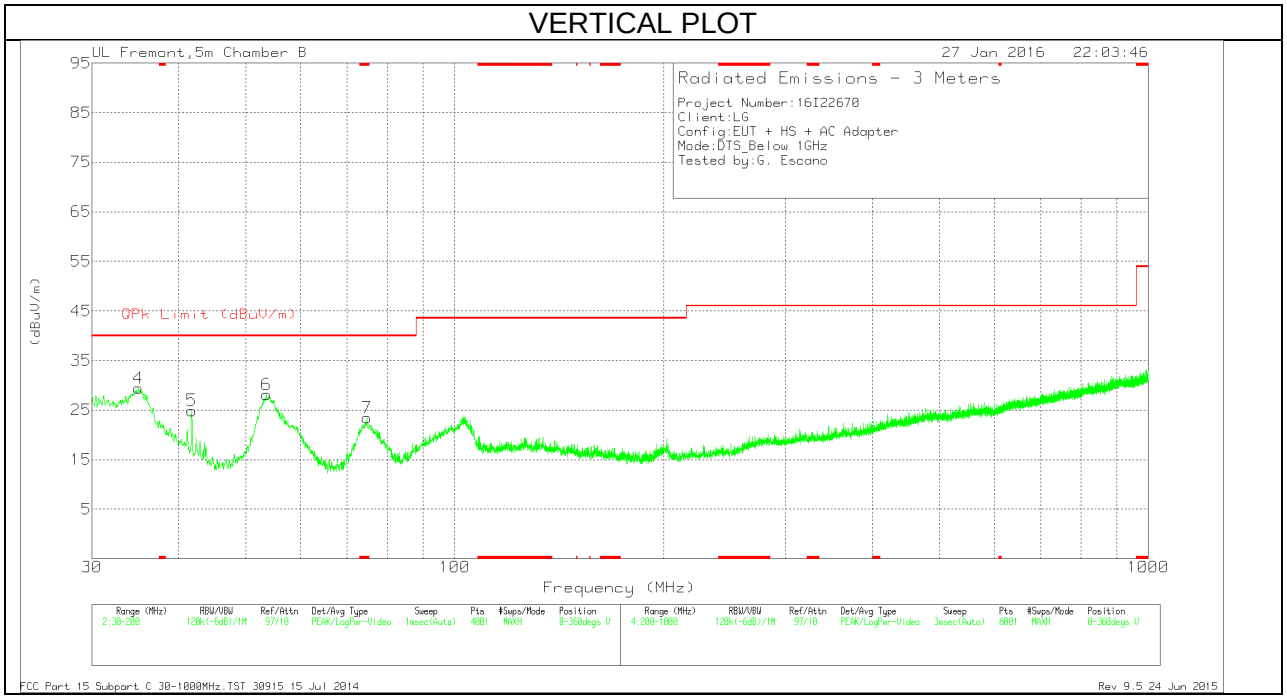
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.02	33.62	Pk	24.4	-28.9	29.12	40	-10.88	0-360	101	H
4	35.015	36.58	Pk	21.6	-28.8	29.38	40	-10.62	0-360	101	V
5	41.7725	37	Pk	16.6	-28.7	24.9	40	-15.1	0-360	101	V
6	53.545	45.78	Pk	11	-28.6	28.18	40	-11.82	0-360	101	V
7	74.71	39.91	Pk	11.9	-28.4	23.41	40	-16.59	0-360	101	V
2	104.29	36.66	Pk	15.6	-28	24.26	43.52	-19.26	0-360	299	H
3	201.6	30.69	Pk	15.9	-27.1	19.49	43.52	-24.03	0-360	101	H

* - indicates frequency in 47 CFR §15.205/IC RSS-Gen §8.10 Restricted Band

Pk - Peak detector

12. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

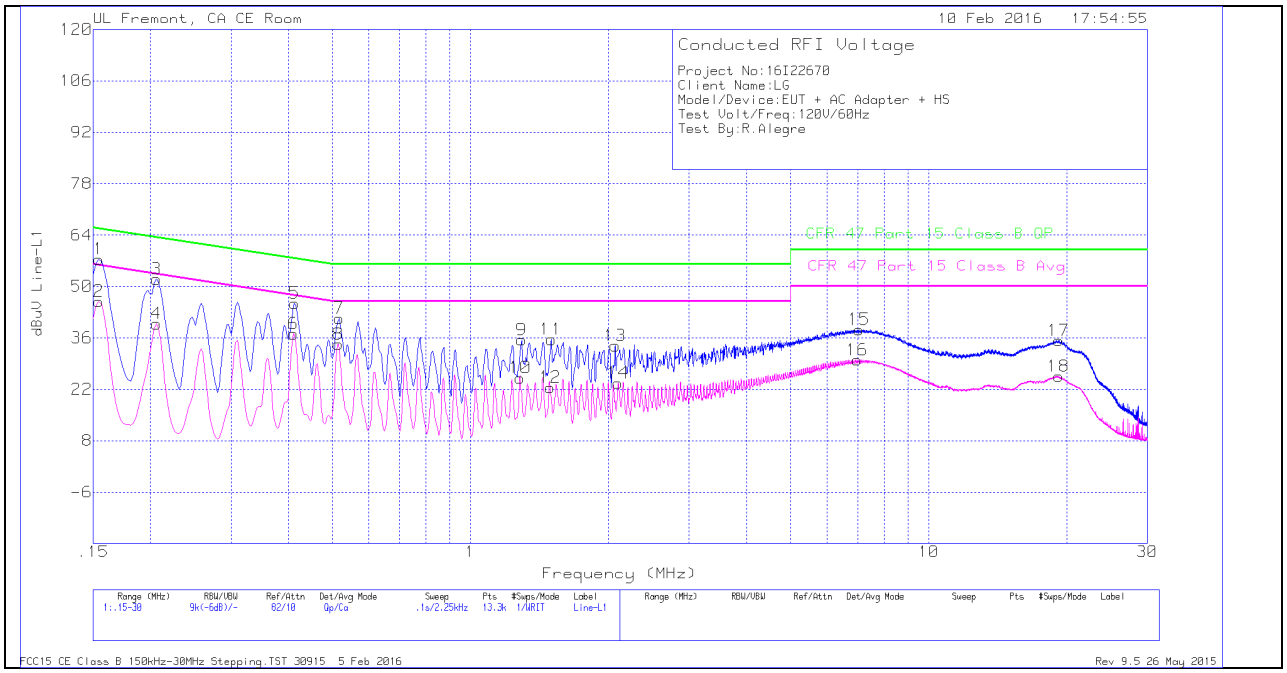
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

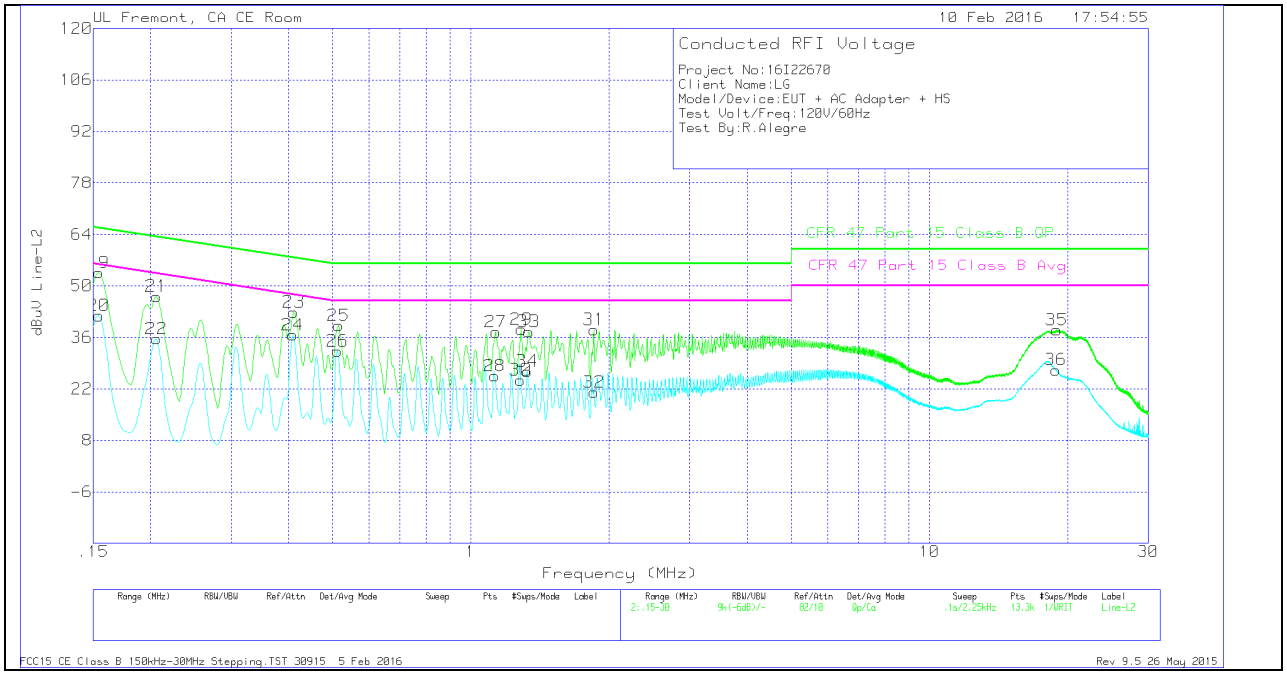
RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 2 PLOT



LINE 1 & LINE 2 RESULTS

Trace Markers

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.1545	47.44	Qp	0	0	10	57.44	65.75	-8.31	-	-
2	.1545	35.94	Ca	0	0	10	45.94	-	-	55.75	-9.81
3	.20625	41.99	Qp	0	0	10	51.99	63.35	-11.36	-	-
4	.20625	29.85	Ca	0	0	10	39.85	-	-	53.35	-13.5
5	.41325	35.45	Qp	0	0	10	45.45	57.58	-12.13	-	-
6	.411	27.13	Ca	0	0	10	37.13	-	-	47.63	-10.5
7	.51675	31.35	Qp	0	0	10	41.35	56	-14.65	-	-
8	.5145	24.28	Ca	0	0	10	34.28	-	-	46	-11.72
9	1.293	25.38	Qp	0	.1	10	35.48	56	-20.52	-	-
10	1.284	15.01	Ca	0	.1	10	25.11	-	-	46	-20.89
11	1.5	25.48	Qp	0	.1	10	35.58	56	-20.42	-	-
12	1.491	12.39	Ca	0	.1	10	22.49	-	-	46	-23.51
13	2.06925	23.78	Qp	0	.1	10	33.88	56	-22.12	-	-
14	2.10075	13.63	Ca	0	.1	10	23.73	-	-	46	-22.27
15	7.0485	28.16	Qp	0	.1	10	38.26	60	-21.74	-	-
16	6.97875	19.87	Ca	0	.1	10	29.97	-	-	50	-20.03
17	19.20075	25.11	Qp	0	.2	10	35.31	60	-24.69	-	-
18	19.1985	15.32	Ca	0	.2	10	25.52	-	-	50	-24.48

Qp - Quasi-Peak detector

Ca - CISPR average detection

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	10dB Pad	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
19	.1545	43.59	Qp	0	0	10	53.59	65.75	-12.16	-	-
20	.1545	31.9	Ca	0	0	10	41.9	-	-	55.75	-13.85
21	.20625	37.16	Qp	0	0	10	47.16	63.35	-16.19	-	-
22	.20625	25.6	Ca	0	0	10	35.6	-	-	53.35	-17.75
23	.411	32.87	Qp	0	0	10	42.87	57.63	-14.76	-	-
24	.40875	26.68	Ca	0	0	10	36.68	-	-	47.67	-10.99
25	.5145	29.25	Qp	0	0	10	39.25	56	-16.75	-	-
26	.51225	22.27	Ca	0	0	10	32.27	-	-	46	-13.73
27	1.13325	27.35	Qp	0	.1	10	37.45	56	-18.55	-	-
28	1.1265	15.42	Ca	0	.1	10	25.52	-	-	46	-20.48
29	1.2885	28.12	Qp	0	.1	10	38.22	56	-17.78	-	-
30	1.284	14.3	Ca	0	.1	10	24.4	-	-	46	-21.6
31	1.8555	27.97	Qp	0	.1	10	38.07	56	-17.93	-	-
32	1.8555	11.01	Ca	0	.1	10	21.11	-	-	46	-24.89
33	1.338	27.45	Qp	0	.1	10	37.55	56	-18.45	-	-
34	1.32675	16.69	Ca	0	.1	10	26.79	-	-	46	-19.21
35	18.94875	27.82	Qp	0	.2	10	38.02	60	-21.98	-	-
36	18.87225	16.97	Ca	0	.2	10	27.17	-	-	50	-22.83

Qp - Quasi-Peak detector

Ca - CISPR average detection